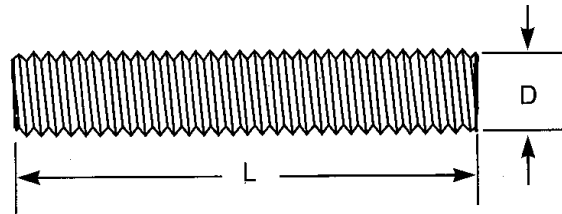


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All Threaded Rods - Inch Series

1.0 Dimensions: ASME B18.31.3.



1.1 Threaded rods have only two dimensions, thread and length.

1.2 Thread: ASME B1.1

Thread Fit:

ASTM A307 Grade A. Plain: 1A. Zinc Plated: 1A before zinc plating and after zinc plating should meet 3A GO and 1A NO GO thread ring gage condition. Hot Dip Galvanized: 1A before coating.

ASTM F1554 Grade 36: Plain: 1A. Zinc Plated: 1A before zinc plating and after zinc plating should meet 3A GO and 1A NO GO thread ring gage condition.

ASTM F1554 Grade 55 S1 Weldable: Plain: 1A

ASTM F593 304 & 316: Passivated: 1A

ASTM A193/A193M or ASME SA-193 /SA-193M Grade B7: Plain: 2A. Zinc Plated: 2A before zinc plating and after zinc plating should meet 3A GO and 2A NO GO thread ring gage condition.

ASTM A193/A193M or ASME SA-193 /SA-193M Grade B8 & B8M: Plain: 2A.

1.3 Length (L): Length of the threaded rod is measured from end to end. Length tolerance is + or - 1/4" inch for nominal lengths less than 6 feet and + or - 1/2" inch for nominal lengths 6 feet & longer.

1.4 Threaded rods ends will not be pointed (not chamfered) on the ends.

2.0 Mechanical Properties:

2.1 Steel

Standard / Grade	Hardness	Tensile Strength
ASTM A307 Grade A	100 HRB Max	Minimum 60,000 PSI

Standard / Grade	Hardness	Tensile Strength	Yield Strength	Elongation Minimum	Reduction of Area Minimum
ASTM A193 / A193M Or ASME SA-193/SA-193M. Grade B7	35 HRC Maximum	Minimum 125,000 PSI	Minimum 105,000 PSI	16 %	50 %



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All Threaded Rods - Inch Series

2.1 Steel Cont'd

Standard / Grade	Tensile Strength	Yield Strength	Elongation Minimum	Reduction of Area Minimum
ASTM F1554 Grade 36	Minimum 58,000 PSI Maximum 80,000 PSI	Minimum 36,000 PSI	Elongation in 8 inch: 20% Elongation in 2 Inch: 23 %	40 %
ASTM F1554 Grade 55 S1 Weldable	Minimum 75,000 PSI Maximum 95,000 PSI	Minimum 55,000 PSI	Elongation in 8 inch: 18% Elongation in 2 Inch: 21 %	30%

2.2 Stainless Steel

Standard / Grade	Diameter	Condition	Hardness	Tensile Strength	Yield Strength
ASTM F593 304 (18-8) & 316	1/4 " to 5/8" Inclusive	CW1	HRB 95 to HRC 32	100,000 PSI to 150,000 PSI	65,000 PSI
	3/4 " to 1-1/2" Inclusive	CW2	HRB 80 to HRC 32	85,000 PSI to 140,000 PSI	45,000 PSI

Standard / Grade	Hardness	Tensile Strength	Yield Strength	Elongation Minimum	Reduction of Area Minimum
ASTM A193 / A193M Or ASME SA-193 / SA-193M. Grade B8 & B8M	96 HRB Max	Minimum 75,000 PSI	Minimum 30,000 PSI	30%	50%

3.0 Surface Finish: Plain / Zinc / HDG. Zinc & HDG details given in table below.

Properties	Zinc Clear	Hot Dip Galvanized (HDG)
Type	Trivalent (Cr+3)	RoHS Compliant
Color	Clear	
Coating Thickness	0.0001" / 3 Microns Minimum	For sizes 3/8 " & under : minimum 0.0017" (43 microns) and for sizes over 3/8 " minimum 0.0020" (50 microns).
Specification	ASTM F1941 / F1941M. Fe/Zn 3AN	ASTM F2329/F2329M or ASTM A153/A153M

Notes: Stainless steel threaded rods will be passivated.

Disclaimer: The above is a compilation of data, from various industry standards. BBI has taken every effort to present the data accurately. However BBI cannot be held liable for any claim traceable to any errors typographical or otherwise contained herein.



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All Threaded Rods - Inch Series

4.0 Frequently Asked Questions on Threaded Rods

1) **Does BBI's threaded rods meet ASTM A36 grade?**

ASTM A36 is a standard specifying the requirement of the raw material steel. It is not a specification for any fastener. Raw material meeting the ASTM A36 standard can be used to manufacture different grades of fasteners. For example parts manufactured from ASTM A36 raw material steel include ASTM A307 Grade A, ASTM F1554 Grade 36 and SAE J429 Grade 2 as well. Therefore the customer should also specify the grade of the threaded rod he is looking for, like ASTM A307 Grade A or ASTM F1554 Grade 36 or SAE J429 grade 2 etc.,.

2) **Can I substitute ASTM A307 Grade A threaded rod for a customer's requirement for ASTM F1554 Grade 36?**

NO. Mechanical properties of ASTM A307 Grade A is not the same as ASTM F1554 Grade 36. The MTR for ASTM F1554 Grade 36 threaded rods will have the test results of tensile strength, yield strength, % elongation and % reduction of area. An MTR for ASTM A307 Grade A threaded rods will only have the test results of hardness & tensile strength. A customer asking for ASTM F1554 Grade 36 will require all the test results (tensile strength, yield strength, % elongation and % reduction of area) hence may not accept the substitution. Even if one takes the ASTM A307 Grade A threaded rod from BBI's stock and test it in a laboratory, it may not meet the mechanical property requirements of ASTM F1554 grade 36 especially in terms of % elongation, % reduction of area and it may exceed the maximum tensile strength requirement.