

# Fidelity Stainless



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## 316/L Round Bar Over 4 Inch

### MATERIAL SPECIFICATIONS

PREPARED BY: H POPE

REVISION DATE: 03/15/13

<b>MATERIAL</b>	STAINLESS ROUND BAR 316/316L 4 1/8" TO 20"	ROUGH TURNED 12-14' R/L	RMS 125-250 DUAL CERTIFIED
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<b>SPECIFICATIONS</b>	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS AISI 316,316L, UNS S316/S31603, DIN# WNR 1.4401/1.4404  ASTM A182, ASTM A193 B8M CL1, ASTM A262 PRACTICE E, ASTM A276 ASTM A314, ASTM A320 B8M CL1, ASTM A388, ASTM A479, ASTM A484 ASME SA182, ASME SA193 B8M CL1, ASME SA320 B8M CL1, ASME SA479 AMS 5648, AMS 5653, SAE-AMS-S-7720A, QQ-S-763F COND A, MIL-S-862 B NACE MR 0175, NACE MR 0103, EN 10088-3, EN 10204-3.1, EN 10222-5, EN 10272
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<u>CHEMICAL ANALYSIS</u>		<u>MECHANICAL PROPERTIES</u>	
Carbon ©	.03	Tensile Strength (U.T.S.)	75 KSI
Chromium (Cr)	16.00/18.00	Yield Strength (Yield)	30 KSI
Cobalt (Co)		Elongation (Ei. or Elong.)	40%
Copper (Cu)	1.00	Reduction of Area (R.A. or Red.)	50%
Manganses (Mn)	2.00	Hardness (RB,RC,or BHN)	140/223 Max BHN AIM 150-180
Molybdenum (Mo)	2.00/3.00		
Nickel (Ni)	10.00/14.00		
Nitrogen (N)	.10		
Phosphorous (P)	.045		
Silicon (Si)	1.00		
Sulfur (S)	.03		

All singular chemistry values are  
MAXIMUM unless otherwise noted

All mechanical properties are  
MINIMUM unless otherwise noted

### OTHER TEST(S) AND/OR REQUIREMENTS

INTERGRANULAR CORROSION TEST (FREE FROM CONTINUOUS CARBIDE)

AS PER ASTM A262-02 PRACTICE E

MACRO ETCH TEST & MICRO STRUCTURE TO BE SATISFACTORY

ULTRASONIC TESTED AS PER ASTM A388

MERCURY FREE CONTAMINATION STATEMENT

FREE FROM RADIOACTIVE CONTAMINATION

NO WELDING OR WELD REPAIR STATEMENT

REPORT GRAIN SIZE PER ASTM E112-96

SOLUTION ANNEALED CONDITION A, PER ASTM A479 AT 1040C/1900F MINIMUM AND WATER QUENCHED

HEAT TREATMENT TEMPERATURE AND TIME (HOURS SOAKED) MUST BE REPORTED

FINISHED CONDITION, MELT AND HOT WORKING PRACTICES (FORGED OR ROLLED) TO BE REPORTED

ROUGH TURNED BAR TO 8" 125 RMS MAXIMUM, OVER 8" 250 RMS MAXIMUM FINISH AS PER ASTM A484

GRADE AND HEAT NUMBER MUST BE METAL STAMPED AT BOTH ENDS ON SIZES 1" DIA. AND LARGER

COLOUR CODE GREEN

BUNDLE WEIGHT - 2200 LBS MAXIMUM

### IMPORTANT:

ORIGINAL CERTIFICATES OF CHEMICAL & PHYSICAL ANALYSIS REQUIRED TWO (2) WEEKS BEFORE SHIPMENT ARRIVES

ALL TEST REPORTS MUST STATE COUNTRY OF ORIGIN

TEST REPORTS MUST HAVE THE SIGNATURE NAME AND TITLE PRINTED

ALL TEST REPORTS MUST BE SIGNED BY AUTHORIZED PERSON