

Fidelity Stainless



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304/L Hexagon Bar

MATERIAL SPECIFICATIONS

PREPARED BY: M POPE

REVISION DATE: 05/25/23

MATERIAL	STAINLESS HEXAGON BAR 304/304L R/L 12-14'	COLD DRAWN DUAL CERTIFIED
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SPECIFICATIONS	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS AISI 304,304L UNS# S30400/S30403, ASTM A182, ASTM A193 B8 CL1, ASTM A262 PRACTICE E, ASTM A276 ASTM A314, ASTM A320 B8 CL1, ASTM A388, ASTM A479, ASTM A484 ASME SA182, ASME SA193 B8 CL1, ASME SA320 B8 CL1, ASME SA479, AMS 5639, AMS 5647, QQ-S-763F COND A, MIL-S-862 B NACE MR 0175, NACE MR0103, EN 10204-3.1
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<u>CHEMICAL ANALYSIS</u>			<u>MECHANICAL PROPERTIES</u>		
Carbon (C)	.03		Tensile Strength (U.T.S.)		75 KSI
Chromium (Cr)	18.00/20.00		Yield Strength (Yield)		30KSI
Cobalt (Co)		aim .10 max	Elongation (Ei. or Elong.)		40%
Copper (Cu)	1.00	aim .75 max	Reduction of Area (R.A. or Red.)		50%
Manganeses (Mn)	2.00	aim 1.50-1.75	Hardness (RB,RC,or BHN)	140/241	BHN MAX
Molybdenum (Mo)	1.00	aim .75 max		aim 170-223	
Nickel (Ni)	8.00/10.50				
Nitrogen (N)	.10				
Phosphorous (P)	.045				
Silicon (Si)	1.00				
Sulfur (S)	.03	aim .02-.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 PRACTICE E
 MACRO ETCH TEST & MICRO STRUCTURE TO BE SATISFACTORY
 MERCURY FREE CONTAMINATION STATEMENT
 FREE FROM RADIOACTIVE CONTAMINATION
 NO WELD OR WELD REPAIR
 REPORT GRAIN SIZE PER ASTM E112-96
 SOLUTION ANNEALED CONDITION A PER ASTM A479 AT 1040C/1900F MINIMUM AND WATER QUENCHED
 FINISHED CONDITION, HEAT TREATMENT AND MELTING PROCESS MUST BE REPORTED
 HEAT NUMBERS MUST BE METAL STAMPED AT BOTH ENDS ON SIZES 1" DIA. AND LARGER
 COLOUR CODE RED
 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.