

Fidelity Stainless



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316/L Angle

MATERIAL SPECIFICATIONS

PREPARED BY: M. POPE

REVISION DATE: 05/25/23

MATERIAL	STAINLESS ANGLE BAR 316/316L R/L 20'-24'	HOT ROLLED, ANNEALED AND PICKLED DUAL CERTIFIED
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SPECIFICATIONS	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS AISI 316,316L, UNS S316/S31603 ASTM A182, ASTM A262 PRACTICE E, ASTM A276, ASTM A314, ASTM A479, ASTM A484 ASME SA182, ASME SA479, ASME SA484, AMS 5648, AMS 5653 QQ-S-763F COND A, EN 10204-3.1	
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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)		aim .10 max	Elongation (El. or Elong.)	40%
Copper (Cu)	1.00	aim .75 max	Reduction of Area (R.A. or Red.)	50%
Manganes (Mn)	2.00		Hardness (RB,RC,or BHN,HB)	140/223 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	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 A262-02 PRACTICE E
 MACRO ETCH TEST & MICRO STRUCTURE TO BE SATISFACTORY AS PER QQS 763
 MERCURY FREE CONTAMINATION STATEMENT
 FREE FROM RADIOACTIVE CONTAMINATION STATEMENT
 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, TIME (HOURS SOAKED) AND COOLING MUST BE REPORTED.
 FINISHED CONDITION, MELT AND HOT WORKING PRACTICE (FORGED OR ROLLED) MUST BE REPORTED.
 GRADE AND HEAT NUMBERS MUST BE METAL STAMPED AT BOTH ENDS ON SIZES 1" DIA. AND LARGER
 COLOUR CODE GREEN
 BUNDLE WEIGHT - 2200 LBS MAXIMUM. ONE HEAT AND SIZE PER BUNDLE.

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