



1303 North Service Road East, Unit #1, Oakville, ON L6H 1A7

Phone: (905)842-1700; Fax: (905)842-5802

316/L Round Bar 1 To 4 Inch

MATERIAL SPECIFICATIONS

PREPARED BY: H. POPE

REVISION DATE: 07/31/18

MATERIAL	STAINLESS ROUND BAR 316/316L 1" TO 4"	SMOOTH TURNED 12-14' R/L DUAL CERTIFIED	RMS 50
-----------------	--	---	--------

SPCIFICATIONS	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, MR 0103, EN 10088-3, EN 10204-3.1, EN 10222-5, EN 10272
----------------------	--

<u>CHEMICAL ANALYSIS</u>	<u>MECHANICAL PROPERTIES</u>
Carbon © .03	Tensile Strength 75 KSI
Chromium (Cr) 16.00/18.00	(U.T.S.)
Cobalt (Co) aim .20 max	Yield Strength 30 KSI
Copper (Cu) 1.00 aim .75 max	(Yield)
Manganeses (Mn) 2.00	Elongation 40%
Molybdenum (Mo) 2.00/3.00	(Ei. or Elong.)
Nickel (Ni) 10.00/14.00	Reduction of Area 50%
Nitrogen (N) .10	(R.A. or Red.)
Phosphorous (P) .045	Hardness 140/223 Max BHN
Silicon (Si) 1.00	(RB,RC,or BHN) aim 150-180
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

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 RMS 50 MAX, MELT AND HOT WORKING PRACTICES (FORGED OR ROLLED) TO 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

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