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17- 4 Round Bar

MATERIAL SPECIFICATIONS

PREPARED BY: M POPE

REVISION DATE: 05/25/23

MATERIAL	STAINLESS ROUND BAR 17-4 PH	SOLUTION ANNEALED - NOT AGED
	12-14' RANDOM LENGTHS	SIZES TO 3 3/4" SMOOTH TURNED SIZES 4" AND OVER ROUGH TURNED

SPECIFICATIONS	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS UNS# S17400
	ASTM A564 TYPE 630 CONDITION A, ASTM A484
	ASME SA 564 TYPE 630
	AMS 5643, AMS 2303, AMS 2315 AISI 630, EN 10204.3.1

<u>CHEMICAL ANALYSIS</u>	<u>MECHANICAL PROPERTIES</u>	<u>TENSILE TEST</u>	H900
Carbon (C) .07	Tensile Strength	Tensile Strength	190 ksi
Chromium (Cr) 15.00/17.50	(U.T.S.)	(U.T.S.)	
Columbium + Tantalum .15/.45	Yield Strength	Yield Strength	170 ksi
Copper (Cu) 3.00/5.00	(Yield)	(Yield)	
Manganeses (Mn) 1.00	Elongation	Elongation	10%
Molybdenum (Mo) .50	(Ei. or Elong.)	(Ei. or Elong.)	
Nickel (Ni) 3.00/5.00	Reduction of Area	Reduction of Area	40%
Phosphorous (P) .04	(R.A. or Red.)	(R.A. or Red.)	
Silicon (Si) 1.00	Hardness 38 RC maximum	Hardness	40 RC
Sulfur (S) .03	(RC,or BHN,HB) 363 BHN maximum	(RC,or BHN,HB)	388 HB

All singular chemistry values are
MAXIMUM unless otherwise noted

All mechanical properties are
MINIMUM unless otherwise noted

All Tensile properties are
MINIMUM unless otherwise noted

OTHER TEST(S) AND/OR REQUIREMENTS

MACRO ETCH TEST & MICRO STRUCTURE TO BE SATISFACTORY
 REPORT FERRITE CONTENT 5% MAXIMUM AS PER AMS 2315
 REPORT BILLETS ARE ULTRASONIC INSPECTED
 FREE FROM MERCURY CONTAMINATION STATEMENT
 NO WELD OR WELD REPAIR STATEMENT
 SOLUTION ANNEALED CONDITION A, AT 1040C/1900F MINIMUM
 HEAT TREATMENT TEMPERATURE AND TIME MUST BE REPORTED
 FINISHED CONDITION, MELT AND HOT WORKING PRACTICES TO BE REPORTED
 MELTED TO REQUIREMENTS OF DFARS 252.225.7014
 REPORT FREQUENCY & SEVERITY RATING AS PER AMS 2303
 REPORT REDUCTION RATIO 4:1 MINIMUM
 HEAT NUMBERS MUST BE METAL STAMPED ON SIZES OVER 1 " DIA.
 COLOR CODE PURPLE
 BUNDLE WEIGHT - 2500 LBS MAXIMUM

IMPORTANT:

ORIGINAL CERTIFICATES OF CHEMICAL & PHYSICAL ANALYSIS REQUIRED PRIOR TO
 SHIPMENT ARRIVAL
 ALL TEST REPORTS MUST STATE COUNTRY OF ORIGIN
 TEST REPORTS MUST HAVE SIGNATURE NAME AND TITLE PRINTED
 ALL TEST REPORTS MUST BE SIGNED BY AUTHORIZED PERSON