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**304/L Round Bar Over 4 Inch**

**MATERIAL SPECIFICATIONS**

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REVISION DATE: 05/25/23

|                 |   |                            |                               |
|-----------------|---|----------------------------|-------------------------------|
| <b>MATERIAL</b> | STAINLESS ROUND BAR 304/304L<br>4 1/8" TO 20" | ROUGH TURNED<br>12-14' R/L | RMS 125-250<br>DUAL CERTIFIED |
|-----------------|---|----------------------------|-------------------------------|

|                       |   |
|-----------------------|---|
| <b>SPECIFICATIONS</b> | <p>ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS<br/>         AISI 304,304L UNS# S30400/S30403 DIN# WNR 1.4301/1.4307</p> <p>ASTM A182, ASTM A193 B8 CL1, ASTM A262 PRACTICE E, ASTM A276,<br/>         ASTM A314, ASTM A320 B8 CL1, ASTM A388, ASTM A479, ASTM A484<br/>         ASME SA182, ASME SA193 B8 CL1, ASME SA320 B8 CL1, ASME SA479<br/>         AMS 5639, AMS 5647, SAE-AMS-S-7720A, QQ-S-763F COND A, MIL-S-862 B,<br/>         NACE MR 0175, MR0103, EN 10088-3, EN 10204-3.1, EN 10222-5, EN 10272</p> |
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| <b>CHEMICAL ANALYSIS</b> |                    | <b>MECHANICAL PROPERTIES</b>        |                            |
|--------------------------|--------------------|-------------------------------------|----------------------------|
| Carbon ( C )             | .03                | Tensile Strength<br>(U.T.S.)        | 75 KSI                     |
| Chromium (Cr)            | 18.00/20.00        | Yield Strength<br>(Yield)           | 30KSI                      |
| Cobalt (Co)              | aim .10 max        | Elongation<br>(Ei. or Elong.)       | 40%                        |
| Copper (Cu)              | 1.00 aim .75 max   | Reduction of Area<br>(R.A. or Red.) | 50%                        |
| Manganes (Mn)            | 2.00 aim 1.50-1.75 | Hardness<br>(RB,RC,or BHN)          | 140/241 Max<br>aim 170-223 |
| Molybdenum (Mo)          | 1.00 aim .75 max   |                                     |                            |
| 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 A262-02 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) MUST 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 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