

| NO. | REVISION  | DATE     | BY   | CKD     |
|-----|---|----------|------|---------|
| H   | Reformatted, added stock lengths, revised mechanical properties, revised tol. table. ECR 7161 | 5/24/01  | MAW  | DJS/JTG |
| J   | Added -1 second suffix for 60" precut length. ECR 8732  | 10/12/05 | JAS2 | JTG     |

Material Grade Designation: UNS S41600

Color Code: Black-White

Material Description: Cold-Finished Round Stainless Steel Bar, Heat-Treated to 28-38 Rockwell C

Stock lengths: 10-12 ft and 20-22 ft

Part Number Example: M 1203-9

First suffix indicates the nominal O.D. in sixteenths of an inch.

Second suffix, if present, indicates precut length. See table below.

| Second Suffix | Length (inches) | Tolerance |
|---------------|-----------------|-----------|
| -1            | 60.000 maximum  | -         |

Material Specification:

ASTM A 582 – 95b: Standard Specification for Free-Machining Stainless Steel Bars

Note: The following information is shown for engineering reference only and is subordinate to the above material specification.

Chemical Requirements, Composition, %: (ASTM A 582)

|            |             |
|------------|-------------|
| Carbon     | 0.15 max    |
| Manganese  | 1.25 max    |
| Phosphorus | 0.06 max    |
| Sulfur     | 0.15 min    |
| Silicon    | 1.00 max    |
| Chromium   | 12.00-14.00 |

Typical Mechanical Properties, 28 Rockwell C (Jorgensen Steel & Aluminum)

| Tensile Strength, min psi | Yield Strength, min psi | Elongation In 2 in., % | Reduction of Area, % | Hardness, Rockwell C |
|---------------------------|-------------------------|------------------------|----------------------|----------------------|
| 125000                    | 100000                  | 18                     | 50                   | 28-38                |

Permissible Variations in Size of Cold-Finished Round Bars:

(ASTM A 484: Standard Specification for General Requirements for Stainless Steel Bars, Billets, and Forgings)

| Specified Size, in. | Permissible Variations from Specified Size, in. |        |
|---------------------|---|--------|
|                     | Over  | Under  |
| 1/16 to 5/16, excl  | 0.001   | 0.001  |
| 5/16 to 1/2, excl   | 0.0015  | 0.0015 |
| 1/2 to 1, excl      | 0.002   | 0.002  |
| 1 to 1 1/2, excl    | 0.0025  | 0.0025 |
| 1 1/2 to 4, incl    | 0.003   | 0.003  |

Cold-finished bars over 4 in. in diameter are produced; size tolerances for such bars are not included herein.

|   |                  |          |   |                        |
|---|------------------|----------|---|------------------------|
| <b>WATEROUS COMPANY</b><br>South St. Paul, MN 55075 | DRN: RCS         | CKD: RCE | DESCRIPTION<br>Round 416 SS CF 28-38 RC | DWG/ITEM NO.<br>M 1203 |
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|   | CAGE NO. 79218   |          |   |                        |