



NOTE 4—A typical ordering description is as follows: 5000 lb [2270 kg] Stainless Steel Bars, Annealed and Centerless Ground, 1 ½ in. [40 mm] Round, 10 ft to 12 ft [3 m to 3.7 m] in length, Type 304, ASTM Specification A276/A276M dated _____. End use: machined valve parts.

4. Manufacture

4.1 Condition:

4.1.1 Bars shall be furnished in one of the following conditions listed in the Mechanical Requirements table:

4.1.1.1 *Condition A*—Annealed.

4.1.1.2 *Condition H*—Hardened and tempered at a relatively low temperature.

4.1.1.3 *Condition T*—Hardened and tempered at a relatively high temperature.

4.1.1.4 *Condition S—Strain Hardened*—Relatively light cold work.

4.1.1.5 *Condition B*—Relatively severe cold work.

4.1.1.6 *Condition SA*—Stabilized annealed.

5. Chemical Composition

5.1 The steel shall conform to the requirements for chemical composition specified in Table 1.

5.2 Methods and practices relating to chemical analysis required by this specification shall be in accordance with Test Methods, Practices, and Terminology A751.

6. Mechanical Properties Requirements

6.1 The material shall conform to the mechanical test requirements specified in Table 2.

6.2 The martensitic grades shall be capable of meeting the hardness requirements after heat treating as specified in Table 3.

6.3 Hardness measurements, when required, shall be made at a location midway between the surface and the center of the cross section.

7. Magnetic Permeability

7.1 When required by the purchase order, the magnetic permeability of Types 201 and 205 in the annealed condition shall not exceed 1.2 as tested by a Severn-type indicator.

8. General Requirements

8.1 In addition to the requirements of this specification, all requirements of the current edition of Specification A484/A484M shall apply. Failure to comply with the general requirements of Specification A484/A484M constitutes non-conformance to this specification.

9. Certification

9.1 The producer's certification that the material was manufactured and tested in accordance with this specification, together with a certified report of the test results shall be furnished at the time of the shipment.

10. Keywords

10.1 austenitic-ferritic duplex stainless steel; austenitic stainless steel; ferritic stainless steel; martensitic stainless steel; stainless steel bars; stainless steel shapes