

**ASTM A333M-88a/ASME SA333 SEAMLESS AND WELDED STEEL PIPE FOR LOW TEMPERATURE SERVICE**

This standard is issued under the fixed designation A 333/A 333M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (2) indicates an editorial change since the last revision or reapproval.

1.Scope

1.1 This specification covers nominal (average) wall seamless and welded carbon and alloy steel pipe intended for use at low temperatures. Several grades of ferritic steel are included as listed in Table 1. Some product sizes may not be available under this specification because heavier wall thickness have an adverse affect in low-temperature impact properties.

1.2 Supplementary Requirement S1 of an optional nature is provided. This shall apply only when specified by the purchaser.

1.3 The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with the specification. The inch-pound units shall apply unless the "M" designation of this specification is specified in the order.

NOTE 1The dimensionless designator NPS (nominal pipe size) has been substituted in this standard for such traditional terms as "nominal diameter," "size," and "nominal size."

Material Comparison Tables (ASTM, KS, JIS, DIN, BS, NBN, NF, UNI)

| ASTM Standard  | UNS NO. | KOREA/JAPANESE     |                |         | GERMAN    |            |                 |             | BRITISH    |                |         | FRENCH     |           |         | ITALIAN  |            |                  |
|--|---------|--------------------|----------------|---------|-----------|------------|-----------------|-------------|------------|----------------|---------|------------|-----------|---------|----------|------------|------------------|
|  |         | KS/JIS Symbol      | KS/JIS Number  | Remarks | DIN Type  | DIN Number | Material Number | Remarks     | B.S Number | B.S Grade      | Remarks | AFNOR Type | NF Number | Remarks | UNI Type | UNI Number | Remarks          |
| A 333 Seamless and Welded Pipe for Low-Temperature Service |         |                    |                |         |           |            |                 |             |            |                |         |            |           |         |          |            |                  |
| Grade 1  | K03008  | SPLT 39 / STPL 380 | D3569 / G 3460 | (16)    | TT St 41N |            | 1.0437          | WBL-680(3b) |            |                | (3)     | TU 42 BT   | A49-230   |         | C 15     | 5949       | (6)Seamless Only |
| Grade 3  | K31918  | SPLT 46 / STPL 450 | D3569 / G 3460 | (16)    | 10 Ni 14  |            | 1.5637          | WBL-680(3b) | 3603       | HFS 503 LT 100 | CAT.2   | TU 16 N 14 | A49-230   | (3c)    | 18 Ni 14 | 5949       | Seamless Only    |
| Grade 6  | K03006  |                    |                | (3)     | TT St     |            | 1.0456          | WBL-680(3b) | 3603       | HFS 410        | CAT.2   | TU 42 BT   | A49-230   |         | C 20     | 5949       | Seamless         |

