Control Lines

API SPECIFICATION 19CL
FIRST EDITION, OCTOBER 2026



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Control Lines

1 Scope

This specification provides requirements for the specification, design, manufacturing, quality, inspection and testing, documentation, and preparation for service of control lines used in downhole oil and gas applications.

More specifically, this specification provides a finite selection for:

a) sizes with various wall thickness options;

b) manufacturing methods: seamless and seam-welded, including welded and drawn, and/or floating plug; and

c) materials.

In addition, this specification provides guidance for the development of the functional requirements and information for the user/purchaser.

This specification does not cover:

a) the electrical part of tubing-encased conductor (TEC) lines or tubing-encased fiber (TEF);

b) control lines used for pumping fiber;

c) manufacturing requirements of the control line spool;

d) associated control line running accessories (sheaves, pulleys);

e) fittings/connectors;

f) mechanical splices.

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any addenda) applies.

API Specification Q1, *Quality Management System Requirements for Organizations Providing Products for the Petroleum and Natural Gas Industry*

API TR 5C3, *Calculating Performance Properties of Pipe Used as Casing Or Tubing*

ASME B31.1, *Power Piping*

ASME B31.3:2024, *Process Piping*

ASME *BPVC*, Section IX, *Welding, Brazing, and Fusing Qualifications*

ASME *BPVC*, Section V, *Nondestructive Examination*

ASNT SNT-TC-1A, *Recommended Practice for Nondestructive Testing Personnel Qualification and Certification*

ASTM A1016/A1016M-24a *(2024, Revision a), Standard Specification for General Requirements for Ferritic Alloy Steel, Austenitic Alloy Steel, and Stainless Steel Tubes*