

# Downhole Perforating Tools

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# Downhole Perforating Tools

## 1 Scope

This specification provides requirements and guidelines for the design and use of downhole perforating tools and related equipment, as defined herein for use in the petroleum and natural gas industry.

This specification provides the requirements for reporting and validating operational ratings of downhole perforating tools that are not addressed by any current standards or specifications. Thus:

- providing well-defined operational ratings for functionality of downhole perforating tools as provided by the supplier/manufacturer;
- defining levels of quality control (QC) for downhole perforating tools including validation requirements, acceptance testing, performance ratings, and service center requirements.

## 2 Normative References

The following referenced 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 5C3, 7th Edition, *Calculating Performance Properties of Pipe Used as Casing or Tubing*

API Specification 5CT, 10th Edition, *Specification for Casing and Tubing*

API Recommended Practice 19B, 3rd Edition, *Recommended Practices for Evaluation of Perforators*

API Recommended Practice 67, *Recommended Practice for Oilfield Explosives Safety*

ASNT SNT-TC-1A, *Personnel Qualification and Certification in Nondestructive Testing*

ASTM A36/A36M, *Standard Specification for Carbon Structural Steel*

ASTM A370, *Standard Test Methods and Definitions for Mechanical Testing of Steel Products*

ASTM E8, *Standard Test Methods for Tension Testing of Metallic Materials*

ASTM E18, *Standard Test Methods for Rockwell Hardness of Metallic Materials*

ASTM E23, *Standard Test Methods for Notched Bar Impact Testing of Metallic Materials*

ASTM E45, *Standard Test Methods for Determining the Inclusion Content of Steel*

ASTM E94/E94M, *Standard Guide for Radiographic Examination Using Industrial Radiographic Film*

ASTM E112, *Standard Test Methods for Determining Average Grain Size*

ASTM E164, *Standard Practice for Contact Ultrasonic Testing of Weldments*

ASTM E213, *Standard Practice for Ultrasonic Testing of Metal Pipe and Tubing*

ASTM E273, *Standard Practice for Ultrasonic Testing of the Weld Zone of Welded Pipe and Tubing*