

Specification for Subsurface Sucker Rod Pump Assemblies, Components, and Fittings

API SPECIFICATION 11AX
THIRTEENTH EDITION, MAY 2015

API MONOGRAM PROGRAM EFFECTIVE DATE: NOVEMBER 4, 2015

ADDENDUM 1, JANUARY 2019
ERRATA 1, MAY 2023



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Introduction

This specification has been developed by users, purchasers, suppliers and manufacturers of subsurface sucker rod pumps intended for use in the petroleum and natural gas industry worldwide. This specification is intended to give requirements and information to all parties in the design, manufacture and selection of subsurface sucker rod pumps and their components. Furthermore, this specification addresses the minimum requirements with which the manufacturer is to claim conformity with this specification.

Included within this specification are normative annexes specifying requirements and informative annexes providing general information.

Attention is brought to users of this specification that requirements above those outlined in this specification can be required for individual applications. This specification is not intended to inhibit a manufacturer from offering, or the user or purchaser from accepting alternative equipment or other engineering solutions. This can be particularly applicable where there is innovative or developing technology. Where an alternative is offered, it is the responsibility of the manufacturer to identify any variations from this specification.

In this specification, quantities expressed in United States Customary (USC) units are also, where practical, expressed in International System (SI) units, either in parentheses in the text or on separate data sheets. USC units shall be the controlling units, SI units are included as a convenience for the user of this specification.

Specification for Subsurface Sucker Rod Pump Assemblies, Components, and Fittings

1 Scope

This specification provides the requirements and guidelines for the design of subsurface sucker rod pumps and their components as defined herein for use in the sucker rod lift method for the petroleum and natural gas industry.

This specification covers subsurface sucker rod pump assemblies (including insert and tubing), components, and fittings, in commonly used bore sizes for the sucker rod lift method. Sufficient dimensional and material requirements are provided to assure interchangeability and standardization of all component parts.

This specification does not cover specialty subsurface sucker rod pump accessories or special design components. Installation, operation, and maintenance of these products are not included in this specification; however, recommendations can be found in API 11AR.

2 Normative References

The following referenced documents are indispensable for the application of this document for manufacture of products. The following referenced documents shall be informative for products that are not manufactured. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Specification 5B, *Specification for Threading, Gauging and Thread Inspection of Casing, Tubing, and Line Pipe Threads*

API Recommended Practice 11AR, *Recommended Practice for Care Use of Subsurface Pumps*

API Specification 11B, *Specification for Sucker Rods: Polished Rods and Liners, Couplings, Sinker Bars, Polished Rod Clamps, Stuffing Boxes, and Pumping Tees*

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

ANSI/ASQ Z1¹, *Sampling Procedures and Tables for Inspection by Attributes*

ANSI/ASQ Z1.4, *Single Sampling Plan for Normal Inspection*

ASNT-TC-1A², *Personnel Qualifications and Certification in Nondestructive Testing*

¹ American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York 10036, www.ansi.org.

² American Society for Nondestructive Testing, 1711 Arlingate Lane, P.O. Box 28518, Columbus, Ohio 43228, www.asnt.org.