

SMPTE RECOMMENDED PRACTICE

Dimensions of 35-mm and 70-mm
Motion-Picture Rewind Spindles



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Foreword

SMPTE (the Society of Motion Picture and Television Engineers) is an internationally-recognized standards developing organization. Headquartered and incorporated in the United States of America, SMPTE has members in over 80 countries on six continents. SMPTE's Engineering Documents, including Standards, Recommended Practices, and Engineering Guidelines, are prepared by SMPTE's Technology Committees. Participation in these Committees is open to all with a bona fide interest in their work. SMPTE cooperates closely with other standards-developing organizations, including ISO, IEC and ITU.

SMPTE Engineering Documents are drafted in accordance with the rules given in its Standards Operations Manual.

SMPTE RP 21 was prepared by Technology Committee 20F.

Intellectual Property

At the time of publication no notice had been received by SMPTE claiming patent rights essential to the implementation of this Engineering Document. However, attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. SMPTE shall not be held responsible for identifying any or all such patent rights.

1 Scope

This practice specifies the dimensions of 5/16-in and 1/2-in spindles for both 35-mm and 70-mm motion-picture rewinds.

2 Conformance Notation

Normative text is text that describes elements of the design that are indispensable or contains the conformance language keywords: "shall", "should", or "may". Informative text is text that is potentially helpful to the user, but not indispensable, and can be removed, changed, or added editorially without affecting interoperability. Informative text does not contain any conformance keywords.

All text in this document is, by default, normative, except: the Introduction, any section explicitly labeled as "Informative" or individual paragraphs that start with "Note:"

The keywords "shall" and "shall not" indicate requirements strictly to be followed in order to conform to the document and from which no deviation is permitted.

The keywords, "should" and "should not" indicate that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited.

The keywords "may" and "need not" indicate courses of action permissible within the limits of the document.

The keyword "reserved" indicates a provision that is not defined at this time, shall not be used, and may be defined in the future. The keyword "forbidden" indicates "reserved" and in addition indicates that the provision will never be defined in the future.

A conformant implementation according to this document is one that includes all mandatory provisions ("shall") and, if implemented, all recommended provisions ("should") as described. A conformant implementation need not implement optional provisions ("may") and need not implement them as described.

Unless otherwise specified, the order of precedence of the types of normative information in this document shall be as follows: Normative prose shall be the authoritative definition; Tables shall be next; followed by formal languages; then figures; and then any other language forms.

3 Dimensions

The dimensions shall be as given in Figure 1, Figure 2 and Table 1. Measurement B shall be measured from the apex of the round spindle.

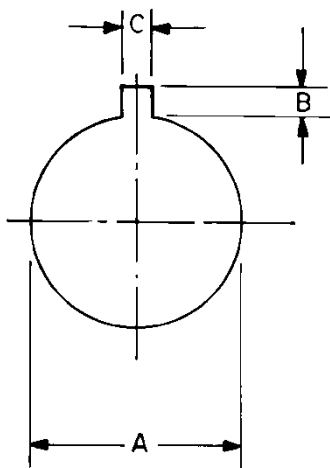


Figure 1 – 5/16-in spindle

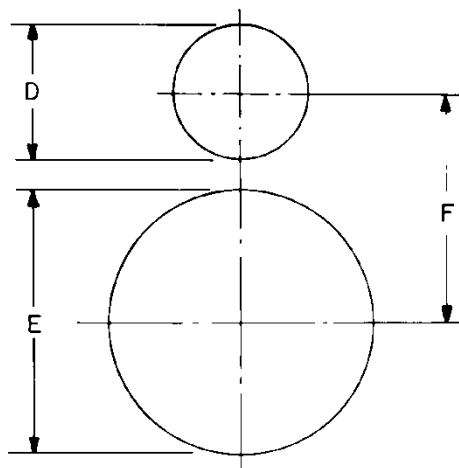


Figure 2 – 1/2-in spindle

Table 1 – Dimensions

Dimensions	Inches		Millimeters	
A	0.315	+ 0.000 – 0.005	8.00	+ 0.00 – 0.13
B	0.120	± 0.010	3.05	± 0.25
C	0.120	± 0.010	3.05	± 0.25
D	0.250	± 0.010	6.35	± 0.25
E	0.500	+ 0.000 – 0.008	12.70	+ 0.00 – 0.20
F	0.782	± 0.010	19.86	± 0.25

Annex A Bibliography (Informative)

Note: All references in this document to other SMPTE documents use the current numbering style (e.g. SMPTE ST 235:1998) although, during a transitional phase, the document as published (printed or PDF) may bear an older designation (such as ANSI/SMPTE 235-1998). Documents with the same root number (e.g. 235) and publication year (e.g. 1998) are functionally identical.

Projection reels:

ANSI/AIIM MS34-1990, Dimensions for Reels Used for 16-mm and 35-mm Microfilm

SMPTE ST 235:1998, Motion-Picture Equipment (16-mm) — Projection Reels — 200- to 2300-Ft Capacity

SMPTE ST 241:2015, Motion-Picture Equipment — 35-and 70-mm Projection Reels

Shipping reels:

SMPTE ST 192:1997, Motion-Picture Equipment (35-mm) — Shipping Reels for Prints