

SMPTE STANDARD**for Motion-Picture Equipment (16-mm) —
Projection Reels —
200- to 2300-Ft Capacity**

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1 Scope

This standard specifies the dimensions for 16-mm motion-picture projection reels having capacities from 200- to 2300 ft (60- to 700 m) of film inclusive.

2 Dimensions

The dimensions shall be as specified in figure 1 and tables 1 and 2.

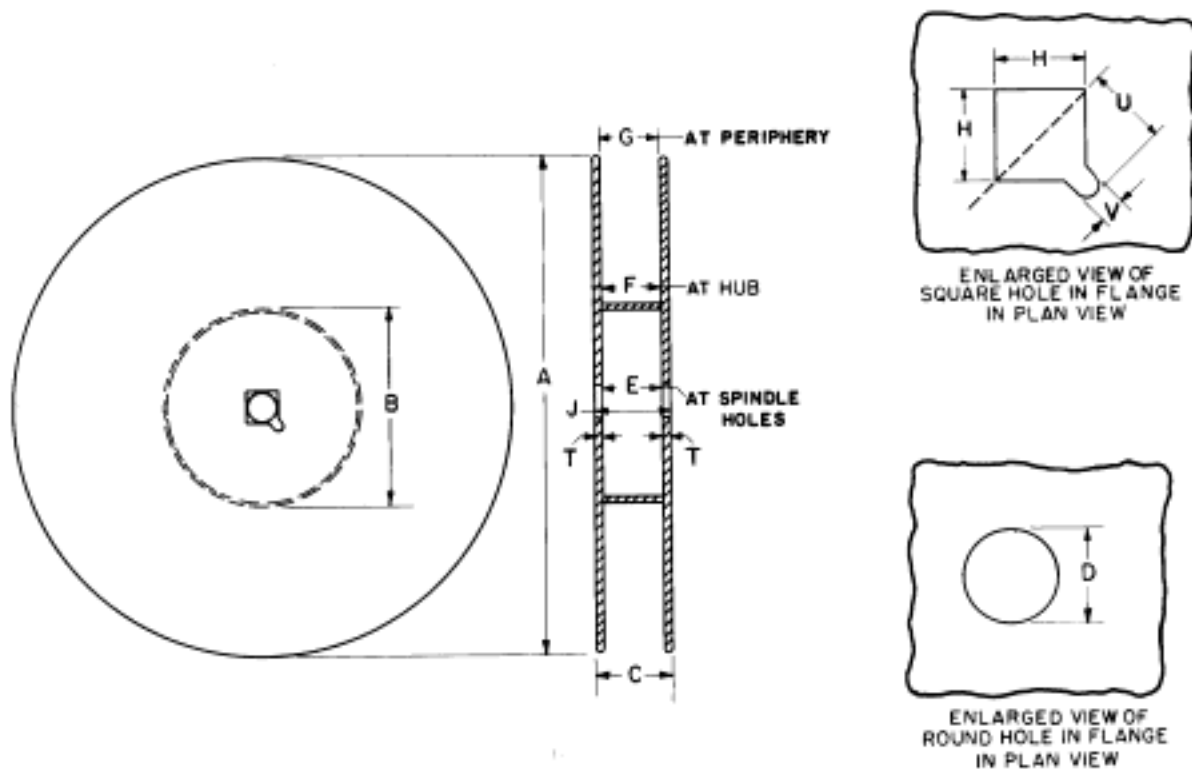


Figure 1 – Plan view and cross section of reel

CAUTION NOTICE: This Standard may be revised or withdrawn at any time. The procedures of the Standard Developer require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of publication. Purchasers of standards may receive current information on all standards by calling or writing the Standard Developer.

Table 1 – Capacity dimensions

Nominal capacity	Dimension A		Dimension B		Lateral runout	
	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters
200 ft (60 m)	5.031 $\begin{smallmatrix} + 0.000 \\ - 0.031 \end{smallmatrix}$	127.79 $\begin{smallmatrix} + 0.00 \\ - 0.79 \end{smallmatrix}$	1.750 ± 0.250	44.45 ± 6.35	0.057 max	1.45 max
400 ft (120 m)	7.000 $\begin{smallmatrix} + 0.000 \\ - 0.031 \end{smallmatrix}$	177.80 $\begin{smallmatrix} + 0.00 \\ - 0.79 \end{smallmatrix}$	2.500 $\begin{smallmatrix} + 0.000 \\ - 0.075 \end{smallmatrix}$	63.50 $\begin{smallmatrix} + 0.00 \\ - 1.90 \end{smallmatrix}$	0.080 max	2.03 max
600 ft (180 m)	9.225 $\begin{smallmatrix} + 0.000 \\ - 0.010 \end{smallmatrix}$	234.32 $\begin{smallmatrix} + 0.00 \\ - 0.25 \end{smallmatrix}$	4.875 $\begin{smallmatrix} + 0.000 \\ - 0.250 \end{smallmatrix}$	123.82 $\begin{smallmatrix} + 0.00 \\ - 6.35 \end{smallmatrix}$	0.080 max	2.03 max
800 ft (240 m)	10.500 $\begin{smallmatrix} + 0.000 \\ - 0.031 \end{smallmatrix}$	266.70 $\begin{smallmatrix} + 0.00 \\ - 0.79 \end{smallmatrix}$	4.875 $\begin{smallmatrix} + 0.000 \\ - 0.375 \end{smallmatrix}$	123.82 $\begin{smallmatrix} + 0.00 \\ - 9.52 \end{smallmatrix}$	0.120 max	3.05 max
1200 ft (370 m)	12.250 $\begin{smallmatrix} + 0.000 \\ - 0.125 \end{smallmatrix}$	311.15 $\begin{smallmatrix} + 0.00 \\ - 3.18 \end{smallmatrix}$	4.875 $\begin{smallmatrix} + 0.000 \\ - 0.250 \end{smallmatrix}$	123.82 $\begin{smallmatrix} + 0.00 \\ - 6.35 \end{smallmatrix}$	0.140 max	3.56 max
1600 ft (490 m)	14.000 $\begin{smallmatrix} + 0.000 \\ - 0.275 \end{smallmatrix}$	355.60 $\begin{smallmatrix} + 0.00 \\ - 6.98 \end{smallmatrix}$	4.875 $\begin{smallmatrix} + 0.000 \\ - 0.250 \end{smallmatrix}$	123.82 $\begin{smallmatrix} + 0.00 \\ - 6.35 \end{smallmatrix}$	0.160 max	4.06 max
2000 ft (610 m)	15.000 $\begin{smallmatrix} + 0.000 \\ - 0.031 \end{smallmatrix}$	381.00 $\begin{smallmatrix} + 0.00 \\ - 0.79 \end{smallmatrix}$	4.875 $\begin{smallmatrix} + 0.000 \\ - 0.250 \end{smallmatrix}$	123.82 $\begin{smallmatrix} + 0.00 \\ - 6.35 \end{smallmatrix}$	0.171 max	4.34 max
2300 ft (700 m)	14.975 $\begin{smallmatrix} + 0.000 \\ - 0.025 \end{smallmatrix}$	380.36 $\begin{smallmatrix} + 0.00 \\ - 0.64 \end{smallmatrix}$	3.550 $\begin{smallmatrix} + 0.000 \\ - 0.015 \end{smallmatrix}$	90.17 $\begin{smallmatrix} + 0.00 \\ - 0.38 \end{smallmatrix}$	0.175 max	4.44 max

Table 2 – Other dimensions

Dimensions		Inches	Millimeters
C	Total thickness (including flared, rolled, or beveled edges, if any)	0.962 max	24.43 max
D	Spindle hole diameter	0.319 $\begin{smallmatrix} + 0.000 \\ - 0.003 \end{smallmatrix}$	8.10 $\begin{smallmatrix} + 0.00 \\ - 0.08 \end{smallmatrix}$
E	Distance between flanges at spindle holes	0.660 ± 0.015	16.76 ± 0.38
F	At hub	0.660 ± 0.010	16.76 ± 0.25
G	At periphery	0.660 $\begin{smallmatrix} + 0.075 \\ - 0.000 \end{smallmatrix}$	16.76 $\begin{smallmatrix} + 1.90 \\ - 0.00 \end{smallmatrix}$
H	Side of square spindle hole	0.319 $\begin{smallmatrix} + 0.000 \\ - 0.003 \end{smallmatrix}$	8.10 $\begin{smallmatrix} + 0.00 \\ - 0.08 \end{smallmatrix}$
J	Overall thickness at spindle holes	0.790 max	20.07 max
T	Flange thickness (adjacent to spindle holes)	0.105 max 0.027 min	2.67 max 0.69 min
U	Keyway depth	0.330 $\begin{smallmatrix} + 0.000 \\ - 0.020 \end{smallmatrix}$	8.38 $\begin{smallmatrix} + 0.00 \\ - 0.51 \end{smallmatrix}$
V	Keyway width	0.125 $\begin{smallmatrix} + 0.005 \\ - 0.000 \end{smallmatrix}$	3.18 $\begin{smallmatrix} + 0.13 \\ - 0.00 \end{smallmatrix}$
	Flange and hub eccentricity	0.031 max	0.79 max