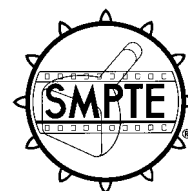


SMPTE STANDARD**ANSI/SMPTE 5-1995**Revision of
ANSI/SMPTE 5-1989**for Television Analog Recording —
2-in Reels**

Page 1 of 2 pages

1 Scope

This standard specifies the dimensions of reels in maximum capacities of 750, 1650, 3600, 5540, and 7230 ft designed to accommodate the maximum thickness of 2-in wide magnetic tape for television recording, as specified in ANSI/SMPTE 1.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this standard. At the time of publication the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

ANSI/SMPTE 1-1990, Video Recording — 2-in Magnetic Recording Tape

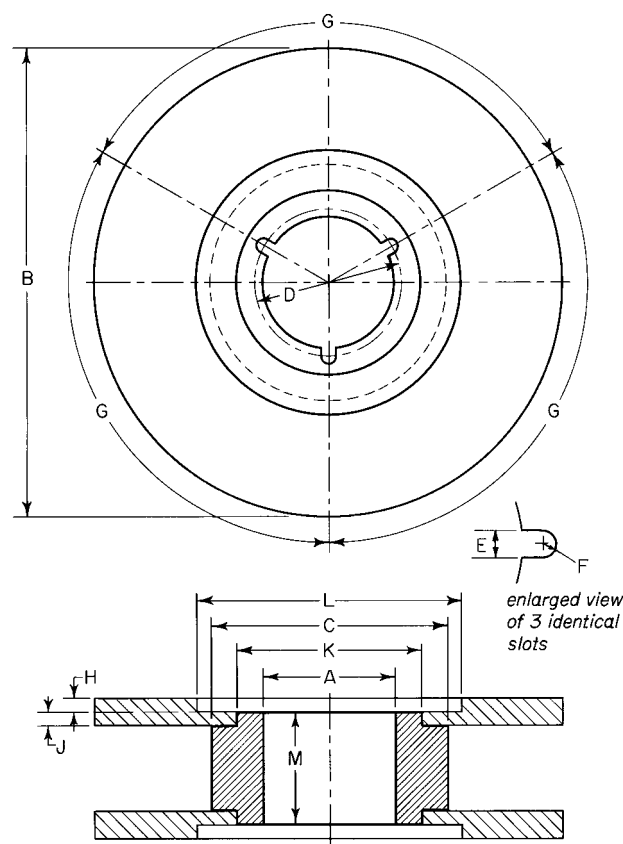
3 Reel dimensions

3.1 The dimensions of the reels shall be as specified in the figure and tables.

3.2 Flange-fastening members shall be flush with or below the outer surface of the flanges.

3.3 The outside cylindrical surface of the hub (C diameter) shall be concentric with the center bore (A diameter) within 0.002 in (0.05 mm) and shall have a maximum taper of 0.0016 in (0.041 mm).

3.4 The outside diameter of the flanges (B diameter) shall be concentric to the center bore of the hub (A diameter) within 0.015 in (0.38 mm).

**Figure 1 – Reel dimensions**

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Table 1 – Reel dimensions

Dimensions	Inches	Millimeters	Degrees
A	3.000 + 0.004 – 0.000	76.20 + 0.10 – 0.00	
B	See table 2	See table 2	
C	4.500 ± 0.010	114.30 ± 0.25	
D	32.50 ± 0.002	82.55 ± 0.05	
E	0.219 + 0.006 – 0.000	5.56 + 0.15 – 0.00	
F	0.109 ref	2.77 ref	
G			120 ± 0.1
H ¹⁾	0.025 max	0.64 max	
J ¹⁾	0.098 max	2.49 max	
K ²⁾	3.600 min	91.44 min	
L ²⁾	6.000 min	152.40 min	
M ³⁾	2.212 ± 0.003	56.18 ± 0.08	
¹⁾ The surface of the flange from B to L shall lie between the planes defined by H and J. ²⁾ Outside surfaces of reel flanges between diameters K and L shall not extend beyond the surfaces defined by dimension M. ³⁾ The hub surfaces defined by M shall be parallel within 0.008 in (0.20 mm) and square with the hub outside diameter C within 0.003 in (0.08 mm) at maximum diameter.			

Table 2 – Reel capacities

Maximum capacity ¹⁾		Maximum playing time in minutes at		Dimension B	
Feet	Meters	7.5 in (19.05 cm)	15 in (38.1 cm)	Inches	Millimeters
750	229	20	10	6.500 ± 0.010	165.10 ± 0.25
1650	503	44	22	8.000 ± 0.010	203.20 ± 0.25
3600	1097	96	48	10.500 ± 0.010	266.70 ± 0.25
5540	1689	148	74	12.500 ± 0.010	317.50 ± 0.25
7230	2204	192	96	14.000 ± 0.010	355.60 ± 0.25
¹⁾ Maximum capacity is based on a minimum distance of 0.2 in (5 mm) from the reel periphery to the tape stack, utilizing maximum thickness tape.					

Annex A (informative)**Additional data**

The outside diameters of the flanges, B, will give reels the capacities suggested in table 2. These capacities should be regarded as maximum.

It is recommended that both flanges have air escape holes. If provided, these holes should extend to the hub periphery and be of such size at this point as to facilitate easy threading.