SMPTE 153-2001
Revision of
ANSI/SMPTE 153-1996

SMPTE STANDARD

for Motion-Picture Film (8-mm Type S) — 16-mm Film Perforated 8-mm Type S (1-4) — Printed Areas

1 Scope

This standard specifies the location and size of the printed picture area for negative/positive and reversal printing operations on 16-mm motion-picture film perforated 8-mm type S, 2R-1664 or 2R-1667, in row positions 1 and 4.

2 Dimensions

2.1 The dimensions shall be as given in figure 1 and table 1.

2.2 Dimension H is measured from the minus-2 perforation because this perforation position coincides with the perforation used to position the resulting 8-mm print in the projector (see annex A.1).

2.3 Two images may be printed on this film. The image area on the left side, not shown in the figure, is symmetrical but opposite in direction to that shown on the right side. The dimensions for each image area, however, are taken from the nearest edge of the film as shown.

NOTES

1 The reduction ratio of prints made from 16-mm negative or reversal originals shall be approximately 1.8:1. The correct ratio is controlled by dimensions C and D.

2 The vertical dimension B of the reduced 8-mm type S image of the original camera aperture image should be nominally centered on the horizontal centerline of the perforation although the exact location will be determined by dimension H and its tolerance.

3 The direction of film travel shown in figure 1 is to aid in illustrating the minus-2 perforation and is the direction of motion in the projector for the resulting 8-mm print if the figure is as seen from the light source of a projector used for direct front projection.

4 If photographic audio is to be applied to the print, it is necessary to consider the required compatibility between this standard and the strong trade preference that a clear septum not appear between the edge of the printed picture and the edge of the printed track. This standard allows overlap (double) printing of adjacent areas of the printed picture and printed track without permitting undesirable incursions of one area into the restricted area of the other. A suggested value of 0.0015 in (0.038 mm) more than minimum may be used.

Approved
June 6, 2001

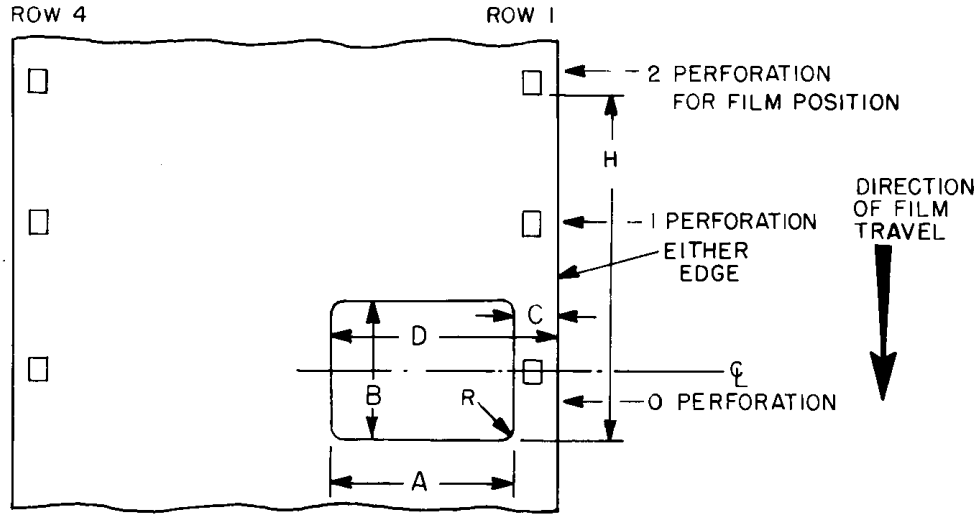

Figure 1 – Dimensions

Table 1 – Specifications

Dimensions	Inches	Millimeters
A	0.228 ref	5.79 ref
B	0.163 min	4.14 min
C	0.058 max	1.47 max
D[1)]	0.282 min	7.16 min
H	0.393 ± 0.002	9.98 ± 0.05
R	0.005 max	0.13 max

[1)] See note 4.

Annex A (informative)
Additional data

A.1 If prints are made with a step printer, the registration device should be in the minus-2 perforation, or that perforation which corresponds to the minus-2 perforation when the final print stage is reached, to obtain maximum benefit of cancellation as films are projected in accordance with ANSI/SMPTE 154, which specifies the minus-2 perforation for projected films.

A.2 The parenthetical numerals have been added to the title of this standard to specify how the rows of perforations are placed on the film. This designation is necessary only when the film stock is wider than its end use and more than one combination of perforation rows is possible. The perforation rows are numbered starting at the reference edge, which is the edge nearest to that row of perforations which is retained in the slitting operation. The row of perforations which is discarded is given the number 0. Negative or intermediate films which are not slit may contain a 0-numbered row of perforations if that perforated row corresponds to the discard row of perforations on the subsequent print stock.

Annex B (informative)
Bibliography

ANSI/SMPTE 154-1998, Motion-Picture Film (8-mm Type S) — Projectable Image Area and Projector Usage

ANSI/SMPTE 168-1996, Motion-Picture Film (16-mm) — Perforated 8-mm Type S, (1-4)

SMPTE 157-1999, Motion-Picture Film (8-mm Type S) — Camera Aperture Image and Usage