

SMPTE STANDARD

SMPTE 181-2001Revision of
ANSI/SMPTE 181-1996

for Motion-Picture Film (8-mm Type S) — 16-mm Film Perforated 8-mm Type S (1-3) — Printed Areas



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1 Scope

This standard specifies the location and size of the 8-mm type S printed picture areas for negative/positive and reversal printing on 16-mm motion-picture film perforated 8-mm type S, 2R-1667 and 2R-1664 in row positions 1 and 3.

2 Dimensions

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

2.2 Dimensions A, B, and H apply to all images. The differences in values from the reference perforation, dimensions B through F, establish the minimum area to be printed. For convenience, and to avoid unnecessary addition and subtraction in applying this standard, a reference dimension of 0.311 in (7.90 mm) from the positioning perforation is suggested.

NOTES

1 The reduction ratio of prints made from 16-mm negatives

or reversal originals shall be approximately 1.8:1. The correct ratio is controlled by dimensions C through F.

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 figure 1 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 unrestricted area of the other. A suggested value of 0.0015 in (0.038 mm) more than minimum may be used.

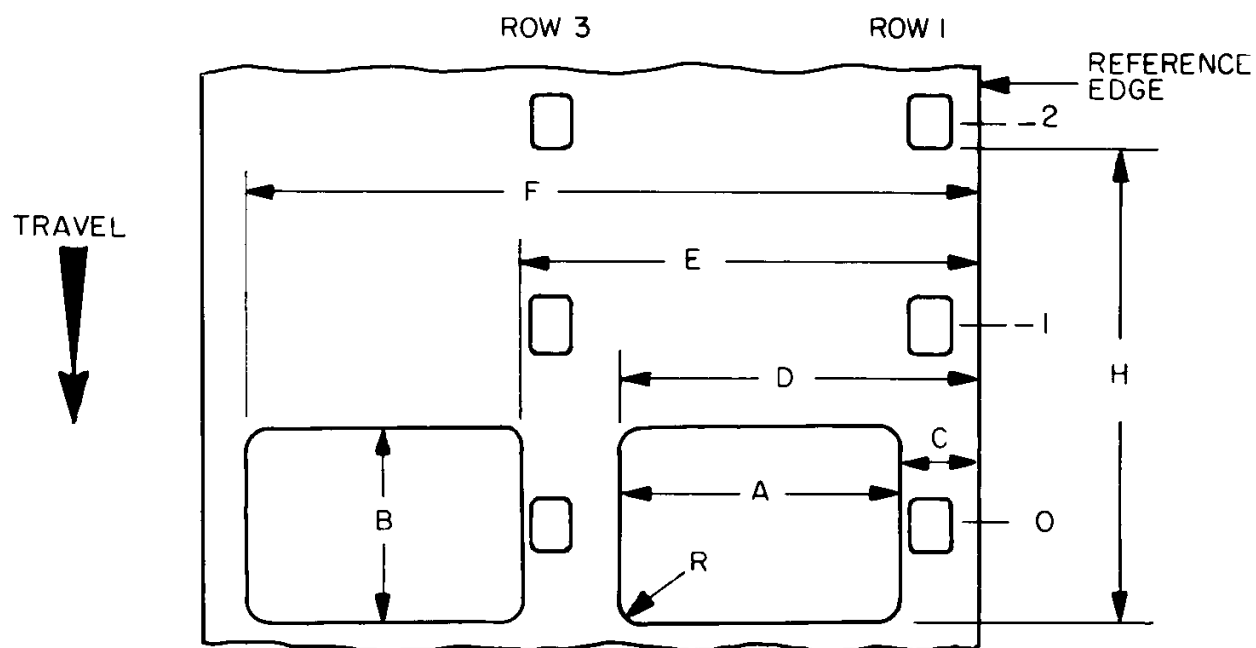


Figure 1 – Dimensions

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
E	0.372 max	9.45 max
F ¹⁾	0.596 min	15.14 min
H ²⁾	0.393 ± 0.002	9.98 ± 0.05
R	0.005 max	0.13 max

¹⁾See note 4.
²⁾See note 3 and annex A.1.

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 position 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 151-1998, Motion-Picture Film (8-mm Type S) — 16-mm Film Perforated 8-mm Type S, (1-3)

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

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