## Appendix

(The Appendix is not a part of this SMPTE Recommended Practice, but is included for information purposes only.)

A1. The transverse cut to provide the mated pairs of film for the tape splice may be made in numerous configurations. Detail X shows only some typical configurations. It is desirable, however, to make the splice as inconspicuous as possible; therefore, the transverse cuts would usually be on the frameline or occur in only one frame.

A2. Dimension B controls the longitudinal registration of the two films being spliced. It is measured to the perforations that are most commonly used for registration on splicing blocks, and to the nearer edges of these perforations, because they are the edges generally used.

A3. If tape splices are made with films to which magnetic oxide has been applied or may be applied, it will be necessary to exclude the splicing material from the magnetic record stripe area.

A4. Visual disruption of the projected image caused by the splice will be minimized if the length of the splicing tape, Dimension F, is kept as short as possible within the requirements of dimensional stability. It is anticipated that, as adhesives are improved, the length of the splicing tape may be reduced to one or two frames. Ideally, the ends of the tape should fall on the framelines to minimize visual disruption.

A5. When the tape splice is used for special applications such as the repair or joining of the ends in a continuous-loop cartridge, the cut configuration should be made wider, as shown on the right side in Detail X, to promote better performance in the projection mechanism. To minimize malfunctions caused by splices in continuous-loop cartridges, tape should always be applied to both sides of the film. In certain types of cartridges, when two separate pieces of splicing tapes are used, a more reliable splice is produced when the tapes are offset by one frame.

A6. When bent into an arc of approximately 50-mm (2-in) diameter, the spliced film should flex smoothly, with no excessive stiffness or tendency to fold. Tape should always be applied to both sides of the film.





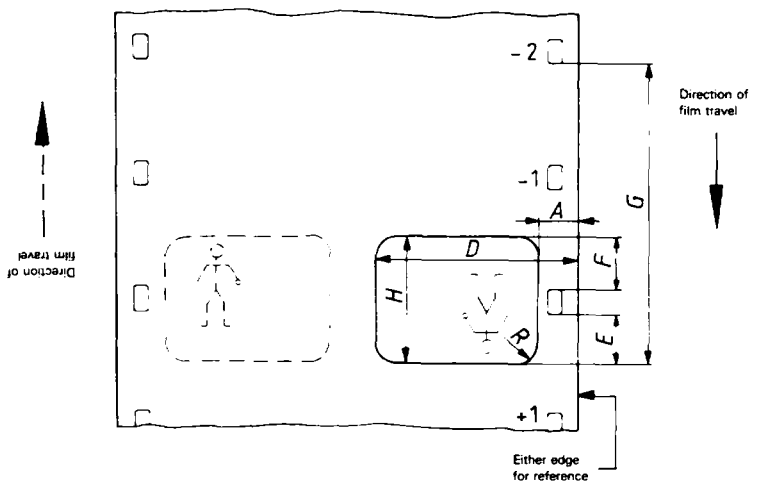
# Cinematography — Printed 8 mm, Type S, image area on 16 mm motion-picture film perforated 8 mm, Type S (1-4) — Position and dimensions

## 1 Scope and field of application

This International Standard specifies the position and dimensions 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, in positions 1 and 4.

## 2 Dimensions

**2.1** The dimensions shall be as shown in the figure and given in the table and apply to the image formed on recently exposed and processed film.




**Figure**

**Table**

| Dimension | mm | in |
|---|---|---|
| *A* max. | 1,47 | 0.058 |
| *D* min. | 7,16 | 0.282 |
| *H* min. (see note 1) | 4,14 | 0.163 |
| *G* (see the annex A.1 and A.2) | 9,98 ± 0,05 | 0.393 ± 0.002 |
| *R* max. | 0,13 | 0.005 |
| *E* and *F* (see note 3) | | |

NOTES

1 Dimension *H* is minimum. In practice the value should be such that the frame line between pictures is opaque in the final print intended for projection.

2 When a photographic sound record is included on the print, it will be necessary to restrict the value of dimension *D* to avoid intrusion into the sound track area (see the annex clause A.5).

3 Dimensions *E* and *F* should not differ from each other by more than 0,20 mm.

**2.2** Two images may be printed on this film. The image on the left-hand side is inverted and symmetrical to that on the right-hand side. The dimensions for this image, however, are taken from the left-hand edge of the film which then becomes the reference edge.

**2.3** The angle between the horizontal edges of the picture image and the corresponding reference edge of the film shall be 90 ± 1/2°.

**2.4** The angle of the vertical edges of the picture images shall be 0 ± 1/2° to the corresponding reference edge of the film.

## 3 Bibliography

ISO 1781, *Cinematography — Projector usage of* 8 mm, *Type S motion-picture film for direct front projection.*

ISO 1787, *Cinematography — Camera usage of* 8 mm *motion-picture film perforated Type S.*

ISO 3645, *Cinematography — Image area produced by* 8 mm *Type S motion-picture camera aperture and maximum projectable image area — Positions and dimensions.*

ISO 4244, *Cinematography — Photographic sound record on* 8 mm *Type S motion-picture prints — Position and width dimensions.*







# Annex

## Additional data

(This annex does not form part of the standard.)

**A.1** If prints are made with a step printer, the registration device should be in the −2 perforation, or that perforation which corresponds to the −2 perforation when the final print stage is reached, to obtain maximum benefit of cancellation as films are projected in accordance with ISO 1781, which specifies the −2 position for projected films.

**A.2** To provide understanding in the design and use of printers, dimension *G* specified in the figure and table provides an image ideally centred vertically on the perforation when the height is *H* min., with a reference dimension of 7,90 mm (0.311 in) from the positioning perforation to the horizontal centre-line of the intended image.

When film having a perforation pitch of 4,227 mm (0.166 4 in) is printed or when dimension *H* differs from *H* min., dimension *G* shall be changed to insure that the resultant image is centred vertically on the perforation, taking into account the processing shrinkage.

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

**A.4** The parenthetical numerals have been added to the title of this International 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.

**A.5** When a photographic sound record is included on the print, a recommended maximum value for dimension *D* of 7,20 mm (0.283 5 in) should be considered to conform to ISO 4244.