motion-picture standards

Three Proposed American Standards

Published here for a three-month period of trial and comment are three proposed American Standards, PH22.103, 35mm CinemaScope Prints with Magnetic Stripes, Usage in Projector; PH22.104, Projector Aperture for 35mm CinemaScope Prints with Magnetic Stripes and PH22.105, Projector Aperture for 35mm Superscope Prints with Optical Sound. All comments should be sent to Henry Kogel, Staff Engineer, prior to March 15, 1956. If no adverse comments are received, the proposals will then be submitted to ASA Sectional Committee PH22 for further processing as American Standards.

These three proposals originated as Motion Picture Research Council Practices and reflect some of the new forms developed recently in the art of motion-picture cinematography and projection. They were submitted for Society consideration sometime around May 1954: PH 22.103 to the Sound Committee and PH22.104 and PH22.105 to the Film Projection Practice Committee, chaired respectively by John Hilliard and Ralph Heacock. Two and three drafts were required before agreement could be reached on these proposals. However, they have now been approved by the above-mentioned committees and the Standards Committee.—H. K.

The 400 American Standards in the Electrical Field is a 60-page booklet which indexes and describes each American Standard in the electrical engineering area. It is designed to help the user and prospective purchaser to find the applicable standard on the product in which he is interested.

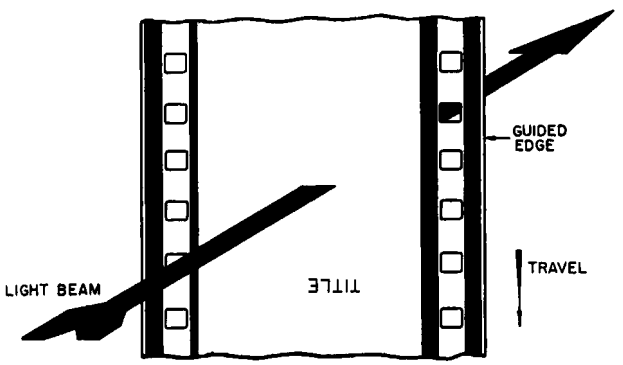
The booklet also gives briefs of each of the current International Electrotechnical Commission recommendations: a listing of all projects under the jurisdiction of the Electrical Standards Board—including officers, sponsors and scopes of these projects. It also contains general information on the work of the American Standards Association, the Electrical Standards Board and the International Electrotechnical Commission. It explains how and why American Standards are developed and describes the benefits to manufacturers, users and the general public. Copies may be obtained free of charge, as long as they last, from the American Standards Association, 70 East 45 St., New York 17.

Proposed American Standard

35mm CinemaScope Prints with Magnetic Stripes

Usage in Projector

PH22.103



Film As Seen From The Light-Source In The Projector

1. Scope

1.1 This standard specifies the location of the photographic emulsion and of the magnetic striping relative to the projector light source and lens, the rate of projection and the relationship between sound and picture of 35mm sound motion-picture film having a 0.073 x 0.078-in. perforation as developed for the CinemaScope process.

2. Position of the Photographic Emulsion and Magnetic Striping

2.1 The photographic emulsion shall be on the side of the film which faces toward the light-source of the projector.

2.2 The magnetic striping shall be on the side of the film which faces toward the lens of the projector.

3. Rate of Projection

3.1 The rate of projection shall be 24 frames/sec.

4. Relationship Between Sound and Picture

4.1 The apparatus and the film shall be so arranged that when the film is threaded normally, the soundtrack is scanned for reproduction at a point 28 frames behind the center line through the picture being projected. Thus, a given point on the film shall pass the picture aperture after it has passed the magnetic soundhead.

NOT APPROVED

Erratum

Proposed American Standard PH22.102 Dimension for 35mm Motion-Picture Film, Alternate Standard for Positive Raw Stock, *Jour. SMPTE, 64:* 634, Nov. 1955.

APPENDIX 2
in the next to the last line
For: 0.950 to 0.935 in.
read: 0.950 to 0.953 in.

Proposed American Standard

Projector Aperture

for

35mm CinemaScope Prints With Magnetic Stripes

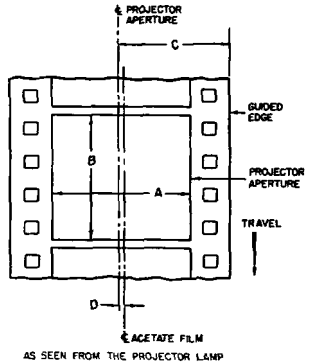
PH22.104

1. Scope

1.1 This standard specifies the dimensions and location of the aperture of projectors used in the projection of 35mm CinemaScope motion pictures employing four magnetic sound records.

2. Dimensions

2.1 The dimensions of the aperture shall be as specified in the diagram and table provided.



AS SEEN FROM THE PROJECTOR LAMP

2.2 Dimensions A and B are specified for an aspect ratio of 2.55:1 and for a projection angle of zero degrees.

2.3 Undersized apertures are required when the projection angle is greater than zero degrees, so that they may be filed to correct for keystone effect (see Appendix).

Dimensions	Inches	Millimeters
A	0.912 max	23.16 max
B	0.715 max	18.16 max
C	0.708 ± 0.002	17.98 ± 0.05
D	0.019	0.48

APPENDIX

When the projection angle is greater than 0°, an undersized aperture must be used to make allowance for the keystone effect. This aperture would then be filed out to fit the particular projection angle. The bottom of this undersized aperture is filed out to the maximum width, 0.912 in., to obtain the necessary width at the top of the picture. The sides of the aperture are then filed to square off the picture. This results in dimension A being less than the maximum at all points other than at the bottom of the aperture.

When the projection angle is less than 0°, an undersized aperture also must be used to make allowance for the keystone effect. This aperture would then be filed out to fit the particular projection angle. The top of this undersized aperture is filed out to the maximum width, 0.912 in., to obtain the necessary width at the bottom of the picture. The sides of the aperture are then led to square off the picture. This results in dimension A being less than the maximum at all points other than at the top of the aperture.

When a curved screen is used the aperture will also have to be undersized with respect to the B dimension to permit the filing of the top and bottom so that these edges of the picture will appear horizontal on the screen.

Proposed American Standard

Projector Aperture

for

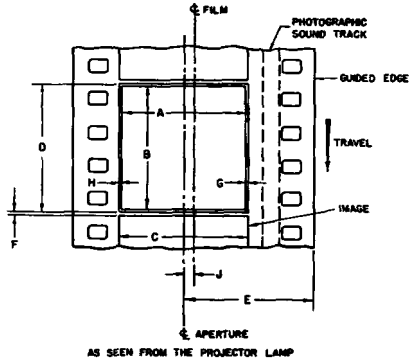
35mm Superscope Prints with Optical Sound

PH22.105

1. Scope

1.1 This standard specifies the dimensions and location of the aperture of projectors used in the projection of 35mm Superscope motion pictures employing one optical sound record.

1.2 It is intended that this aperture will be used in conjunction with 35mm motion-picture film cut and perforated in accordance with American Standard PH22.1-1953, Dimensions for 35mm Motion-Picture Film, Alternate Standards for Either Positive or Negative Raw Stock or PH22.36-1954, Dimensions for 35mm Motion-Picture Positive Raw Stock.



AS SEEN FROM THE PROJECTOR LAMP

2. Dimensions

2.1 The dimensions of the aperture shall be as specified in the diagram and table provided.

2.2 Dimensions A and B are specified for an aspect ratio of 2:1 and for a projection angle of zero degrees.

2.3 Undersized apertures are required when the projection angle is greater than zero degrees, so that they may be filed to correct for keystone effect (see Appendix).

2.4 It should be noted that the distance of the aperture centerline from the guided edge of the film is the same as for the 0.600 x 0.825-in. aperture specified in PH22.58-1954, Aperture for 35mm Sound Motion-Picture Projectors.

Dimensions	Inches	Millimeters
A	0.715 max	18.16 max
B	0.715 max	18.16 max
C	0.735 min	18.67 min
D	0.735	18.67
E	0.738 ± 0.002	18.75 ± 0.05
F	0.013	0.33
G	0.010	0.25
H	0.010	0.25
J	0.049	1.24

APPENDIX

When the projection angle is greater than 0°, an undersized aperture must be used to make allowance for the keystone effect. This aperture would then be filed out to fit the particular projection angle. The bottom of this undersized aperture is filed out to the maximum width, 0.715 in., to obtain the necessary width at the top of the picture. The sides of the aperture are then filed to square off the picture. This results in dimension A being less than the maximum at all points other than at the bottom of the aperture.

When the projection angle is less than 0°, an undersized aperture also must be used to make allowance for the keystone effect. This aperture would then be filed out to fit the particular projection angle. The top of this undersized aperture is filed out to the maximum width, 0.715 in., to obtain the necessary width at the bottom of the picture. The sides of the aperture are then filed to square off the picture. This results in dimension A being less than the maximum at all points other than at the top of the aperture.

When a curved screen is used the aperture will also have to be undersized with respect to the B dimension to permit the filing of the top and bottom so that these edges of the picture will appear horizontal on the screen.