New American Standards

SIX NEW American standards, approved by the American Standards Association on March 14, 1950, appear on the following pages. The four which deal with 16- and 8-mm camera and projector apertures were published as proposed standards in the March, 1949, JOURNAL, for a period of trial and comment. No criticism of the proposals was received; therefore no change in the technical content has been made.

The Standard for Mounting Frames for Theater Screens (Z22.78) was developed by a Subcommittee of ASA Sectional Committee Z22, and is being published here for the first time. The need for a standard of this type became apparent in 1946 when the revision of Standard Dimensions for Theater Screens Z22.29 was undertaken. The new standard describes good current practice and will aid manufacturers and theater owners in selecting the appropriate frame for any particular application.

The Standard for 16-Mm Sound Projector Test Film (Z22.79) is also being published for the first time. It was developed by the joint Test Film Committee of the Motion Picture Research Council and the Society as a revision of War Standard Z52.2. It describes a 16-mm version of the 35-Mm Theater Sound Test Film, familiar to many members as the old "Academy" test reel. The primary difference between this American Standard and the old War Standard is of an editorial nature. The detailed procedure for selecting appropriate sound test samples is now covered in the American Standard for the 35-Mm Film Z22.60 which was approved in 1948 and was published in the November, 1948, JOURNAL.

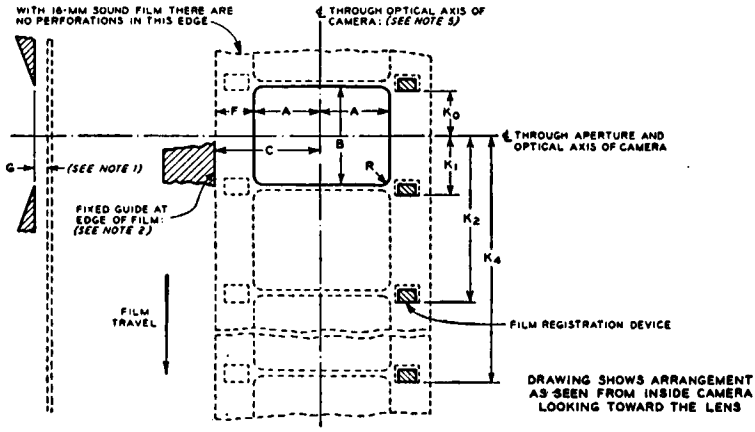
One other important change concerns the re-recording characteristic to be used in making up the 16-mm film. During the war there was no agreement as to what high-frequency equalization should be used in the 16-mm re-recording channel. Now, however, the major studios have reached an agreement, and the recommendations have been published as the Research Council Bulletin N-1.1.

American Standard

Location and Size of Picture Aperture of 16-Millimeter Motion Picture Cameras

ASA
Reg. U. S. Pat. Off.
Z22.7-1950
Revision of
Z22.7-1941
and
Z22.13-1941
*UDC 778.53

This standard applies to both silent and sound 16-mm. motion picture cameras. It covers the size and shape of the picture aperture and the relative positions of the aperture, the optical axis, the edge guide, and the film registration device. The notes are a part of this standard.



Dimension	Inches	Millimeters	Note
A (measured perpendicular to edge of film)	0.201 minimum	5.11 minimum	1
B (measured parallel to edge of film)	$0.292\ ^{+0.006}_{-0.002}$	$7.42\ ^{+0.18}_{-0.05}$	1
C	0.314 ± 0.002	7.98 ± 0.05	2
F	0.110 minimum	2.79 minimum	3
K_0	0.125 ± 0.002	3.18 ± 0.05	4
K_1	0.175 ± 0.002	4.44 ± 0.05	4
K_2	0.474 ± 0.002	12.04 ± 0.05	4
K_3	0.773 ± 0.002	19.63 ± 0.05	4
K_4	1.072 ± 0.001	27.23 ± 0.03	4
R	0.020 maximum	0.51 maximum	1

Approved March 14, 1950 by the American Standards Association Incorporated
Sponsor: Society of Motion Picture and Television Engineers Incorporated
*Universal Decimal Classification

Copyright 1950, by American Standard Assn., Inc., reprinted by permission of the copyright holder.

American Standard

Location and Size of Picture Aperture of 16-Millimeter Motion Picture Cameras

ASA
Reg. U. S. Pat. Off.
Z22.7-1950
Revision of
Z22.7-1941
and
Z22.13-1941
*UDC 778.53

The angle between the vertical edges of the aperture and the edges of normally positioned film shall be 0 degrees, ± ½ degree.

The angle between the horizontal edges of the aperture and the edges of normally positioned film shall be 90 degrees, ± ½ degree.

Note 1: Dimensions A, B, and R apply to the size of the image at the plane of the emulsion; the actual picture aperture has to be slightly smaller. The exact amount of this difference depends on the lens used and on the separation (dimension G) of the emulsion and the physical aperture. G should be no larger than is necessary to preclude scratching of the film. The greatest difference between the image size and aperture size occurs with short focal-length, large diameter lenses.

Dimensions A and B are consistent with the size of the images on a 16-mm. reduction print made from a 35-mm. negative with the standard 2.15 reduction ratio.

It is desirable to hold the vertical height of the actual aperture to a value that will insure a real (unexposed) frameline. This results in less distraction when the frameline is projected on the screen than is the case when adjacent frames overlap.

Note 2: The edge guide is shown on the sound-track edge. This location for it has the advantage that the rails bearing on the face of the film along this edge and also between the sound track and picture area can be of adequate width. Disadvantages of this location for the edge guide are that, because film shrinkage and tolerances affect the lateral position of the perforations, the pulldown tooth must be comparatively narrow and will not always be centered in the perforation.

The guide can be on the other edge, adjacent to the perforated edge of sound film. With the guide at this edge, the width of the pulldown tooth does not have to be decreased to allow for shrinkage. However, because of variations introduced by shrinkage of film, this location for the edge guide has the important disadvantage that it makes extremely difficult the provision of rails of adequate width to support the sound-track edge without encroaching on, and consequently scratching, the picture or sound-track area. (See Section 3, Proposals for 16-mm. and 8-mm. Sprocket Standards, Vol. 48, No. 6, June 1947, Journal of the Society of Motion Picture Engineers).

American Standard

Location and Size of Picture Aperture of 16-Millimeter Motion Picture Cameras

ASA
Reg. U. S. Pat. Off.
Z22.7-1950
Revision of
Z22.7-1941
and
Z22.13-1941
*UDC 778.53

The film may be pressed against the fixed edge guide by a spring, by the tendency of the film to tilt in the gate, or by other means. In the second case, there is a fixed guide for each edge of the film. The important point is to have the film centered laterally on the optical axis.

Dimension C is made slightly less than half the width of unshrunk film so that the film will be laterally centered if it has a slight shrinkage at the time it is run in the camera. This is the normal condition. As indicated by the above discussion, C may be measured in either direction from the vertical centerline.

Note 3: Dimension F must be maintained only when a photographic sound record is to be made on the film that passes through the camera; otherwise F may be disregarded.

Note 4: The K dimensions are measured along the path of the film from the horizontal centerline of the aperture to the stopping position of the registration device. Both the dimensions and tolerances were computed to keep the frameline within 0.002 to 0.005 inch of the centered position for films having shrinkages of 0.0 to 0.5 per cent at the time they are exposed in the camera. For any given camera, use the value of K corresponding to the location of the registration device.

If the film does not stop exactly where the film registration device leaves it, because of coasting or some other cause, a slight adjustment of the value of K will be necessary. This will be indicated if film that has a shrinkage of 0.2 to 0.3 per cent when it is run in the camera does not show a properly centered frameline. From such a test, the amount and direction of the adjustment can be determined.

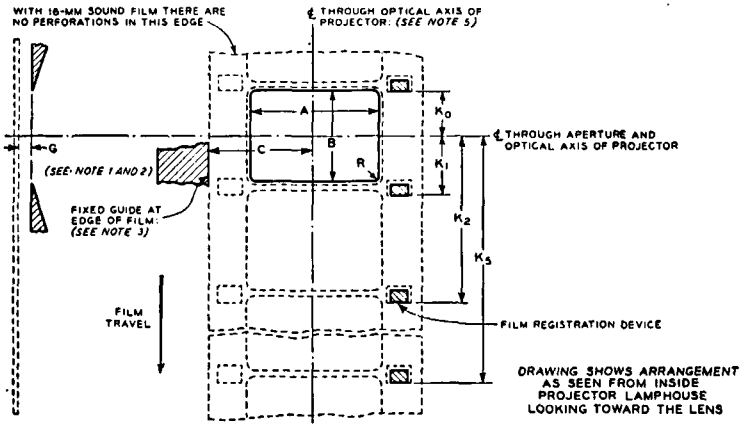
Note 5: "Optical axis of camera" is defined as the mechanical axis or centerline of the sleeve or other device for holding the picture-taking lens. Except for manufacturing tolerances, it coincides with the optical axis of the lens.

American Standard

Location and Size of Picture Aperture of 16-Millimeter Motion Picture Projectors

ASA
Reg. U. S. Pat. Off.
Z22.8-1950
Revision of
Z22.8-1941
and
Z22.14-1941
*UDC 778.55

This standard applies to both silent and sound 16-mm. motion picture projectors. It covers the size and shape of the picture aperture and the relative positions of the aperture, the optical axis, the edge guide, and the film registration device. *The notes are a part of this standard.*



Dimension	Inches	Millimeters	Note
A (measured perpendicular to edge of film)	0.380 ± 0.002	9.65 ± 0.05	1
B (measured parallel to edge of film)	0.284 ± 0.002	7.21 ± 0.05	1
C	0.314 ± 0.002	7.98 ± 0.05	3
K_0	0.124 ± 0.005	3.15 ± 0.13	4
K_1	0.174 ± 0.005	4.42 ± 0.13	4
K_2	0.473 ± 0.005	12.01 ± 0.13	4
K_3	0.771 ± 0.005	19.58 ± 0.13	4
K_4	1.070 ± 0.005	27.18 ± 0.13	4
K_5	1.368 ± 0.005	34.75 ± 0.13	4
R	0.020 maximum	0.51 maximum	1

Approved March 14, 1950 by the American Standards Association Incorporated
Sponsor: Society of Motion Picture and Television Engineers Incorporated

*Universal Decimal Classification

Copyright 1950, by American Standard Assn., Inc., reprinted by permission of the copyright holder.

American Standard

Location and Size of Picture Aperture of 16-Millimeter Motion Picture Projectors

ASA
Reg. U. S. Pat. Off
Z22.8-1950
Revision of
Z22.8-1941
and
Z22.14-1941
*UDC 778.55

The angle between the vertical edges of the aperture and the edges of normally positioned film shall be 0 degrees, ± ½ degree.

The angle between the horizontal edges of the aperture and the edges of normally positioned film shall be 90 degrees, ± ½ degree.

Note 1: Dimensions A, B, and R apply to the portion of the image on the film that is to be projected; the actual opening in the aperture plate has to be slightly smaller. The exact amount of this difference depends on the lens used and on the separation (dimension G) of the emulsion and the physical aperture. To minimize the difference in size and make the image of the aperture as sharp as practicable on the screen, G should be no larger than is necessary to preclude scratching of the film. When the reduction in size from the image to the actual aperture is being computed, it is suggested a 2-inch f/1.6 lens be assumed unless there is reason for doing otherwise.

Note 2: The limiting aperture is shown as being between the film and the light source so that it will give the maximum protection from heat. If other factors are more important, it may be on the other side of the film.

Note 3: The edge guide is shown on the sound-track edge. This location for it has the advantage that the rails bearing on the face of the film along this edge and also between the sound track and picture area can be of adequate width. Disadvantages of this location for the edge guide are that, because film shrinkage and tolerances affect the lateral position of the perforations, the pulldown tooth must be comparatively narrow and will not always be centered in the perforation. Also, in some prints the sound-track edge is slit after processing, in which case there is likely to be some lateral weave between this edge and the pictures.

The guide can be on the other edge, adjacent to the perforated edge of sound film. With the guide at this edge, the width of the pulldown tooth does not have to be decreased to allow for shrinkage. Also, slitting the sound-track edge after processing will not introduce lateral unsteadiness. However, because of variations introduced by shrinkage of film, this location for the edge guide has the important disadvantage that it makes extremely difficult the provision of rails of adequate width to support the

American Standard

Location and Size of Picture Aperture of 16-Millimeter Motion Picture Projectors

ASA
Reg. U. S. Pat. Off.
Z22.8-1950
Revision of
Z22.8-1941
and
Z22.14-1941
*UDC 778.55

sound-track edge without encroaching on, and consequently scratching, the picture or sound-track area. (See Section 3, Proposals for 16-mm. and 8-mm. Sproket Standards, Vol. 48, No. 6, June 1947, Journal of the Society of Motion Picture Engineers).

The film may be pressed against the fixed edge guide by a spring, by the tendency of the film to tilt in the gate, or by other means. In the second case, there is a fixed guide for each edge of the film. The important point is to have the film centered laterally on the optical axis.

Dimension C is made slightly less than half the width of unshrunk film so that the film will be laterally centered if it has a slight shrinkage at the time it is run in the projector. This is the normal condition. As indicated by the above discussion, C may be measured in either direction from the *vertical centerline*.

Note 4: The K dimensions are measured along the path of the film from the horizontal centerline of the aperture to the stopping position of the registration device. It is customary to provide a framing movement of 0.025 inch above and below this nominal position. For any given projector, use the value of K corresponding to the location of the registration device.

If the film does not stop exactly where the film registration device leaves it, because of coasting or some other cause, a slight adjustment of the value of K will be necessary.

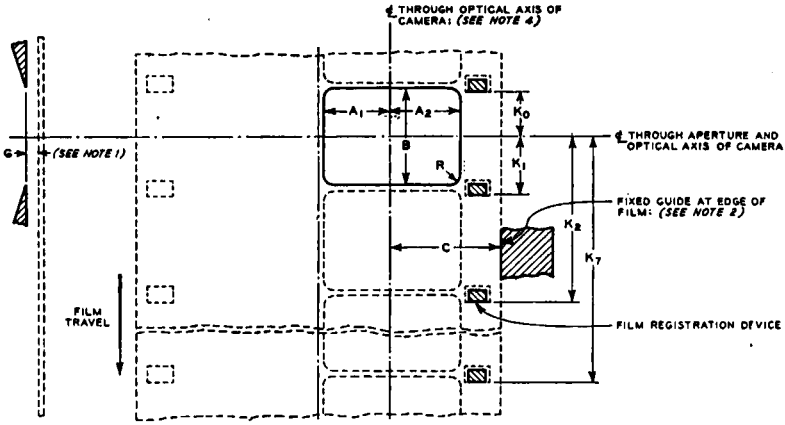
Note 5: "Optical axis of projector" is defined as the mechanical axis or centerline of the sleeve for holding the projection lens. Except for manufacturing tolerances it coincides with the lens axis.

American Standard

Location and Size of Picture Aperture of 8-Millimeter Motion Picture Cameras

ASA
Reg. U. S. Pat. Off.
Z22.19-1950
Revision of
Z22.19-1941
*UDC 778.53

This standard applies to 8-mm. motion picture cameras. It covers the size and shape of the picture aperture and the relative positions of the aperture, the optical axis, the edge guide, and the film registration device. The notes are a part of this standard.



DRAWING SHOWS ARRANGEMENT AS SEEN FROM INSIDE CAMERA LOOKING TOWARD THE LENS

Dimension	Inches	Millimeters	Note
A_1 (measured perpendicular to edge of film)	0.094 min., 0.104 max.	2.39 min., 2.64 max.	1
A_2	0.094 min.	2.39 min.	1
B (measured parallel to edge of film)	$0.138^{+0.008}_{-0.001}$	$3.51^{+0.20}_{-0.03}$	1
C	0.205 ± 0.002	5.21 ± 0.05	2
K_0	0.050 ± 0.002	1.27 ± 0.05	3
K_1	0.100 ± 0.002	2.54 ± 0.05	3
K_2	0.249 ± 0.002	6.32 ± 0.05	3
K_3	0.399 ± 0.002	10.13 ± 0.05	3
K_4	0.549 ± 0.002	13.94 ± 0.05	3
K_5	0.698 ± 0.002	17.73 ± 0.05	3
K_6	0.848 ± 0.002	21.54 ± 0.05	3
K_7	0.998 ± 0.002	25.35 ± 0.05	3
R	0.010 maximum	0.25 maximum	1

Approved March 14, 1950 by the American Standards Association Incorporated
Sponsor: Society of Motion Picture and Television Engineers Incorporated

*Universal Decimal Classification

Copyright 1950 by American Standard Assn., Inc., reprinted by permission of the copyright holder.

American Standard

Location and Size of Picture Aperture of 8-Millimeter Motion Picture Cameras

ASA
Reg. U. S. Pat. Off.
Z22.19-1950
Revision of
Z22.19-1941
*UDC 778.53

The angle between the vertical edges of the aperture and the edges of normally positioned film shall be 0 degrees, ± ½ degree.

The angles between the horizontal edges of the aperture and the edges of normally positioned film shall be 90 degrees, ± ½ degree.

Note 1: Dimensions A, B, and R apply to the size of the image at the plane of the emulsion; the actual picture aperture has to be slightly smaller. The exact amount of this difference depends on the lens used and on the separation (dimension G) of the emulsion and the physical aperture. G should be no larger than is necessary to preclude scratching of the film. The greatest difference between the image size and aperture size occurs with short focal-length, large diameter lenses.

It is desirable to hold the vertical height of the actual aperture to a value that will insure a real (unexposed) frameline. This results in less distraction when the frameline is projected on the screen than is the case when adjacent frames overlap.

Note 2: The film may be pressed against the fixed edge guide by a spring, by the tendency of the film to tilt in the gate, or by other means. In the second case (generally used in pre-loaded magazines), there is a fixed guide for each edge of the film. The important point is to have the film located in the correct lateral position with respect to the optical axis.

The value of dimension C has been chosen on the assumption that the film will have a slight shrinkage when it is run through the camera. This is the normal condition.

Note 3: The K dimensions are measured along the path of the film from the horizontal centerline of the aperture to the effective stopping position of the registration device. Both the dimensions and tolerances were computed to keep the frameline within 0.002 to 0.005 inch of the centered position for films having shrinkages between 0.0 and 0.5 per cent at the time they are exposed in the camera. For any given camera, use the value of K corresponding to the location of the registering device.

If the film does not stop exactly where the film registration device leaves it, because of coasting or some other cause, a slight adjustment of the value of K will be necessary. This will be indicated if film that has a shrinkage of 0.2 to 0.3 per cent when it is run in the camera does not show a properly centered frameline. From such a test, the amount and direction of the adjustment can be determined.

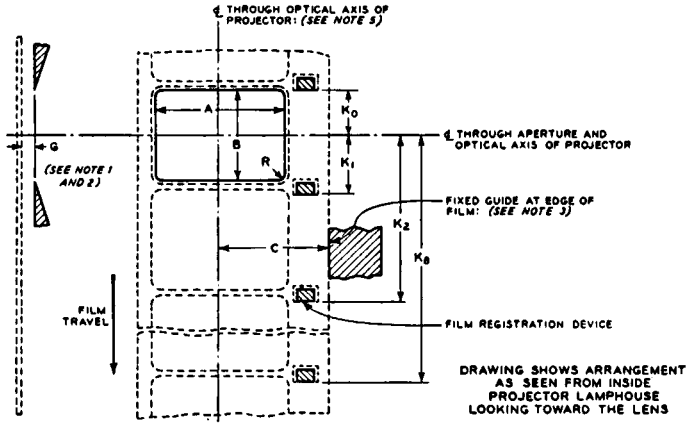
Note 4: "Optical axis of camera" is defined as the mechanical axis or centerline of the sleeve or other device for holding the picture-taking lens. Except for manufacturing tolerances, it coincides with the optical axis of the lens.

American Standard

Location and Size of Picture Aperture of 8-Millimeter Motion Picture Projectors

ASA
Reg. U. S. Pat. Off.
Z22.20-1950
Revision of
Z22.20-1941
*UDC 778.55

This standard applies to 8-mm. motion picture projectors. It covers the size and shape of the picture aperture and the relative positions of the aperture, the optical axis, the edge guide, and the film registration device. The notes are a part of this standard.



Dimension	Inches	Millimeters	Note
A (measured perpendicular to edge of film)	0.172 ± 0.001	4.37 ± 0.03	
B (measured parallel to edge of film)	0.129 ± 0.001	3.28 ± 0.03	1
C	0.205 ± 0.002	5.21 ± 0.05	3
K_0	0.050 ± 0.005	1.27 ± 0.13	4
K_1	0.100 ± 0.005	2.54 ± 0.13	4
K_2	0.249 ± 0.005	6.32 ± 0.13	4
K_3	0.398 ± 0.005	10.11 ± 0.13	4
K_4	0.547 ± 0.005	13.89 ± 0.13	4
K_5	0.696 ± 0.005	17.68 ± 0.13	4
K_6	0.846 ± 0.005	21.49 ± 0.13	4
K_7	0.995 ± 0.005	25.27 ± 0.13	4
K_8	1.144 ± 0.005	29.06 ± 0.13	4
R	0.010 maximum	0.25 maximum	1

Approved March 14, 1950 by the American Standards Association Incorporated
Sponsor: Society of Motion Picture and Television Engineers Incorporated

*Universal Decimal Classification

Copyright 1950, by American Standard Assn., Inc., reprinted by permission of the copyright holder.

American Standard

Location and Size of Picture Aperture of 8-Millimeter Motion Picture Projectors

ASA
Reg. U. S. Pat. Off.
Z22.20-1950
Revision of
Z22.20-1941
*UDC 778.55

The angle between the vertical edges of the aperture and the edges of normally positioned film shall be 0 degrees, ± ½ degree.

The angle between the horizontal edges of the aperture and the edges of normally positioned film shall be 90 degrees, ± ½ degree.

Note 1: Dimensions A, B, and R apply to the portion of the image on the film that is to be projected; the actual opening in the aperture plate has to be slightly smaller. The exact amount of this difference depends on the lens used and on the separation (dimension G) of the emulsion and the physical aperture. To minimize the difference in size and make the image of the aperture as sharp as practicable on the screen, G should be no larger than is necessary to preclude scratching of the film. When the reduction in size from the image to the actual aperture is being computed, it is suggested a 1-inch f/1.6 lens be assumed unless there is reason for doing otherwise.

Note 2: The limiting aperture is shown as being between the film and the light source so that it will give the maximum protection from heat. If other factors are more important, it may be on the other side of the film.

Note 3: In 8-mm. projectors the edge guide should bear on the edge of the film adjacent to the perforations. The other edge of the film usually is slit after processing and so is more likely to weave laterally with respect to the pictures.

The value of dimension C has been chosen so that film having a slight shrinkage when it is projected will be properly centered. This is the normal condition.

Note 4: The K dimensions are measured along the path of the film from the horizontal centerline of the aperture to the stopping position of the registration device. It is customary to provide a framing movement of approximately 0.025 inch above and below this nominal position. For any given projector, use the value of K corresponding to the location of the registration device.

If the film does not stop exactly where the film registration device leaves it, because of coasting or some other cause, a slight adjustment of the value of K will be necessary.

Note 5: "Optical axis of projector" is defined as the mechanical axis or centerline of the sleeve for holding the projection lens. Except for manufacturing tolerances, it coincides with the lens axis.

American Standard Dimensions for

Mounting Frames for Theater Projection Screens

ASA
Reg. U. S. Pat. Off
Z22.78-1950
*UDC 778.55

1. Scope and Purpose

1.1 This standard specifies dimensions for the mounting frames used for supporting motion picture theater projection screens.

2. Frame Size

2.1 Sizes of frames shall be in accordance with the table below.

2.2 The frame size shall be measured from the inner edge of one side to the inner edge of the opposite side.

2.3 Frames for use with screens of less than 12 feet x 16 feet require 3½ in. minimum clearance on each of the four sides with the minimum clearance increasing as indicated for the larger sizes.

3. Hooks

3.1 Suitable lacing hooks shall be provided on the inner edges of the frames. These hooks shall be spaced on 6$\frac{1}{32}$ in. centers starting at points 3 in. on either side of the center of the four sides of the frame.

Table of Frame Sizes

For Screen Size No.	Minimum Inside Dimensions of Frame				Over-All Screen Size Width			Height		
	Ft	In.		Ft	In.	Ft		In.	Ft	In.
8	8	7	×	6	7	8	×	6		
9	9	7	×	7	4	9	×	6	9	
10	10	7	×	8	1	10	×	7	6	
11	11	7	×	8	10	11	×	8	3	
12	12	7	×	9	7	12	×	9		
13	13	7	×	10	4	13	×	9	9	
14	14	7	×	11	1	14	×	10	6	
15	15	7	×	11	10	15	×	11	3	
16	16	10	×	12	10	16	×	12		
17	17	10	×	13	7	17	×	12	9	
18	18	10	×	14	4	18	×	13	6	
19	19	10	×	15	1	19	×	14	3	
20	20	10	×	15	10	20	×	15		
21	21	0	×	16	7	21	×	15	9	
22	23	1	×	17	7	22	×	16	6	
23	24	1	×	18	4	23	×	17	3	
24	25	1	×	19	1	24	×	18		
25	26	1	×	19	10	25	×	18	9	
26	27	1	×	20	7	26	×	19	6	
27	28	1	×	21	4	27	×	20	3	
28	29	1	×	22	1	28	×	21		
29	30	1	×	22	10	29	×	21	9	
30	31	1	×	23	7	30	×	22	6	

Approved March 14, 1950, by the American Standards Association, Incorporated

Sponsor: Society of Motion Picture and Television Engineers

*Universal Decimal Classification

Copyright 1950, by American Standard Assn., Inc., reprinted by permission of the copyright holder.

American Standard Dimensions for

Mounting Frames for Theater Projection Screens

ASA
Reg. U. S. Pat. Off.
Z22.78-1950

Appendix

Projection screens for motion picture theaters are supplied in a variety of materials each of which has its own physical properties. One of these properties is the amount a screen of a given size will stretch after it is laced into a frame. For this reason it may be desired to provide mounting frames with more clearance than that specified in the table. The inside frame dimensions are specified as the minimum dimensions which will give a satisfactory installation when used with an average screen of the corresponding size.

Although frames suitable for mounting theater projection screens may be fabricated from any material of the required strength and rigidity, the following wood structural members are suggested:

For Screen Sizes from No. 8 to 11: 2 x 4 main members with 1 x 3 angle braces at the corners

For Screen Sizes from No. 12 to 19: 2 x 6 main members with 2 x 3 corner braces

For Screen Sizes from No. 20 to 30: 2 x 6 main members with 2 x 3 corner braces and two 2 x 4 vertical center braces spaced approximately 12 feet apart with the addition of a 2 x 6 approximately 12 feet long, reinforcing the spliced main members at top and bottom.

Note: For reference purposes the screen dimensions are also shown in the table. Complete information on screen sizes is given in American Standard Dimensions for Theater Projection Screens, Z22.29-1948.

American Standard for

16-Millimeter Sound Projector Test Film

ASA
Reg. U. S. Pat. Off.
Z22.79-1950
*UDC 778.55

1. Scope and Purpose

1.1 This standard describes a film for qualitatively checking and adjusting 16-mm motion picture sound projection equipment and for judging the acoustical properties of the room in which the sound is reproduced.

2. Test Film

2.1 The film shall have a sound track and accompanying picture. The sound track shall comply with American Standard Sound Records and Scanning Area of 16-Mm Sound Motion Picture Prints, Z22.41-1946, and the film stock used shall be cut and perforated in accordance with American Standard Cutting and Perforating Dimensions for 16-Mm Sound Motion Picture Negative and Positive Raw Stock, Z22.12-1947, or any subsequent revisions thereof.

2.2 The test film shall contain samples selected from studio feature pictures in accordance with the American Standard for Theater Sound Test Film for 35-Mm Motion Picture Sound Reproducing Systems, Z22.60-1948, or any subsequent revisions thereof.

2.3 The assembled film shall contain picture reduced from the 35-mm sound test film, the dimensions of which shall comply with American Standard Location and Size of Picture Aperture of 16-Mm Sound Motion Picture Cameras, Z22.7-1941, or any subsequent revisions thereof.

2.4 The 16-mm release sound track shall be rerecorded from 35-mm original or release tracks through a rerecording channel, the electrical characteristics of which shall comply with current practices* in the industry in rerecording 35-mm feature releases for 16-mm release.

2.5 Each film shall be provided with suitable head and tail leaders. The main title shall include the issue number of the film so that revised versions which may be issued periodically to conform to changing studio practices or to changes in the reproducing characteristic of the 16-mm sound projectors may be easily identified.

2.6 Each film shall be accompanied by an instruction sheet indicating the procedure to be used in checking and adjusting 16-mm projection equipment.

2.7 The length of the film shall be approximately 200 feet.

3. Method of Use

3.1 From a typical location in the room where the sound is reproduced, the observer should determine whether or not the frequency response characteristics of the complete reproducing system are normal by listening to the sound reproduced from the test film when the tone control is set normal and the volume control is set to reproduce the dialogue at normal sound level.

3.2 If the picture and sound quality are displeasing and the dialogue unintelligible, then either:

(a) The equipment should be adjusted as shown in the technical manual provided by the manufacturer, or

(b) The room in which the sound is reproduced is not suitable.

Methods by which these factors may be determined should be included in the instruction sheet.

NOTE: A test film in accordance with this standard is available from the Motion Picture Research Council or the Society of Motion Picture and Television Engineers.

*See Motion Picture Research Council Practice for Rerecording 16-Mm Release from 35-Mm Release Sound Track N-1.1.

Approved March 14, 1950 by the American Standards Association, Incorporated
Sponsor: Society of Motion Picture and Television Engineers
*Universal Decimal Classification

Copyright 1950, by American Standard Assn., Inc., reprinted by permission of the copyright holder.