
International Standard



3639

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Cinematography — Projection reels/spools 75 to 312 mm diameter for 8 mm Type S motion-picture film — Dimensions and specifications

Cinématographie — Bobines de projection pour film cinématographique 8 mm, type S, de diamètre 75 à 312 mm — Dimensions et spécifications

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3639 was developed by Technical Committee ISO/TC 36, *Cinematography*, and was circulated to the member bodies in March 1978.

It has been approved by the member bodies of the following countries :

Austria	Germany, F.R.	Sweden
Belgium	India	Switzerland
Canada	Italy	Turkey
Czechoslovakia	Japan	United Kingdom
Denmark	Netherlands	USA
France	Spain	USSR

No member body expressed disapproval of the document.

Cinematography — Projection reels/spools 75 to 312 mm diameter for 8 mm Type S motion-picture film — Dimensions and specifications

1 Scope and field of application

This International Standard specifies the dimensions for 8 mm Type S motion-picture projection reels/spools of 75 to 312 mm diameter (with the exception of the 75 mm Type No. 7) that are interchangeable on all types of reel-to-reel projection equipment.

NOTE — The No. 7 reel (75 mm), although temporarily recognized, will be superseded by that specified in ISO 6033. It is recommended that new projection equipment and reel/spool manufacturing capacity should comply with the requirements of ISO 6033.

2 Reference

ISO 6033, *Cinematography — Projection reels for 8 mm Type S projector cassette — Dimensions and specifications*.¹⁾

3 Dimensions

3.1 The dimensions shall be as shown in the figures and given in the tables.

NOTE — A datum reference plane of rotation is defined for each flange of a reel/spool by a plane coincident with the surface of a flat 25,00 mm diameter support which is centred on the spindle hole datum axis of the flanges. The reference surface makes contact with the reel/spool in the minimum K diameter area. The datum axis, which is perpendicular to the datum reference plane of rotation, does not necessarily coincide with the axis derived from the centre of the spindle holes. (See figure 2.)

3.2 These dimensions apply regardless of the material used for construction. (See 4.4.)

3.3 Dimension H applies from the surface of the hub to the periphery of the flanges.

3.4 The minimum dimension K represents the diameter of the central portion of the reel/spool centred on the spindle hole axis, over which the effective central thickness J of the reel/spool is intended to apply. (See 3.5.)

3.5 Dimension J applies only within the maximum K diameter area, and represents the distance, or effective distance, between the respective reference planes of rotation for each flange.

3.6 Selection of dimension P value is dependent upon the thickness of the material used for the flanges.

According to the flange material thickness :

- 1) the K diameter area may be depressed (with P greater than zero); or
- 2) the outside surfaces of the flanges may be flat from spindle hole area to periphery (with P equal to zero); or
- 3) in the case of flanges made of very thin material, the K diameter area may be raised rather than recessed (effectively, P less than zero).

3.6.1 The P value for one flange should not differ from the corresponding P value for the other flange by more than 0,5 mm.

3.6.2 Any chosen flange thickness shall be maintained within $\pm 0,13$ mm from 5 mm of the hub to within 5 mm of the periphery of the reel flange for reel size 10, and 10 mm from the hub to within 10 mm of the periphery of reel size 13 and larger. Intentional special configurations, art work, depressions or cut-out are excluded from this tolerance limitation.

3.7 If film attachment is provided by a slot in the reel/spool hub, a minimum cut-out in the hub is required for easy access to the film end, and to provide for insertion of a film retention plug or clip, if desired for automatic rewind equipment. The stippled area shown in the figure represents one type of cut-out which might be used. The cut-out area should be in both flanges so that a retaining clip of width J could be accommodated. The minimum cut-out area is outlined within the

1) At present at the stage of draft.