International Standard 6027

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Cinematography — Projection reels for 8-mm Type S motion-picture film for use with projection cassettes — Dimensions and specifications

Cinématographie — Bobines de projection pour film cinématographique de 8 mm type S, destinées à être utilisées dans des cassettes de projection — 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 6027 was developed by Technical Committee ISO/TC 36, *Cinematography*, and was circulated to the member bodies in November 1979.

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

Austria	France	Sweden
Belgium	Germany, F. R.	Switzerland
Canada	Italy	United Kingdom
Czechoslovakia	Japan	USA
Denmark	South Africa, Rep. of	USSR
Egypt, Arab Rep. of	Spain	

No member body expressed disapproval of the document.

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Cinematography — Projection reels for 8-mm Type S motion-picture film for use with projection cassettes — Dimensions and specifications

1 Scope and field of application

1.1 This International Standard specifies the dimensions for 8-mm Type S motion-picture projection reels designed for use in the projection cassettes, which are used with compatibly designed 8-mm Type S motion-picture projectors.

1.2 Two models for reels are specified, size number 15 of 67 m (220 ft) nominal capacity and size number 19 of 120 m (400 ft) nominal capacity.

2 References

ISO 1700, *Cinematography — 8-mm Type S motion-picture raw stock film — Cutting and perforating dimensions.*

ISO 3639, *Cinematography — Projection reels for* 8-mm *Type S motion-picture film — Dimensions and specifications.*[1)]

ISO 3653, *Cinematography — Spindles for* 8-mm *Type S motion-picture projection reels — Dimensions.*

3 Dimensions

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

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

3.3 The dimension K represents the diameter of the central portion of the reel centred on the spindle-hole axis, over which the effective central thickness J of the reel is intended to apply.

3.4 The maximum volume of rotation is measured with a tight fitting test spindle which fits on the K diameter (solid flange side) by means of a shoulder 19,0 mm (0.75 in), in diameter. The reference plane of rotation for both flanges is a plane perpendicular to datum cylinder **A**.

3.5 The concentricity of the spindle hole C and the hub E is determined as a run-out specification by dimension U. A similar allowance is provided for the concentricity of the spindle hole and the flanges in the maximum volume of rotation diagram (figure 2) by having dimension V exceed dimension M maximum by 0,80 mm (0.031 in).

1) At present at the stage of draft.

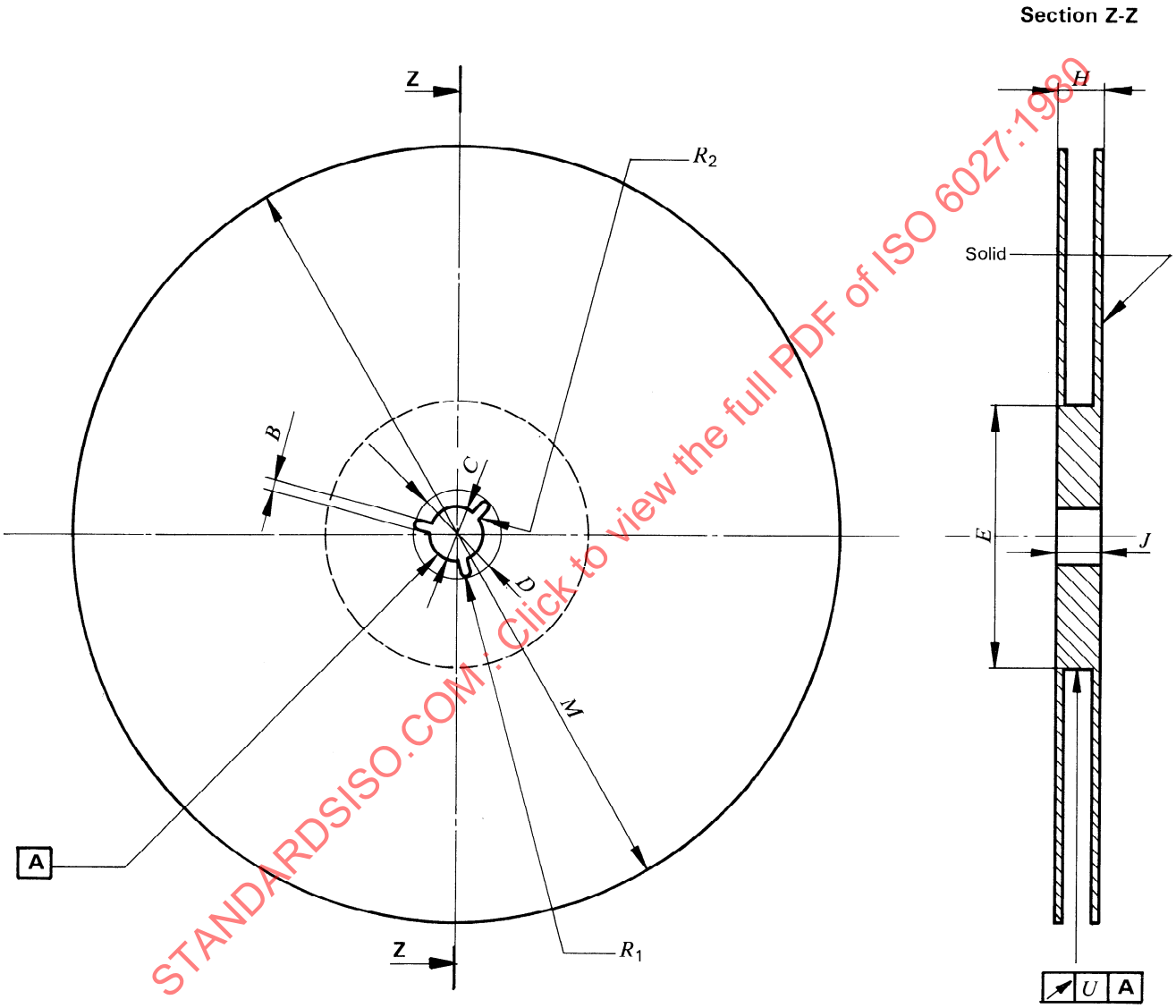

Figure 1 — Reel dimensions

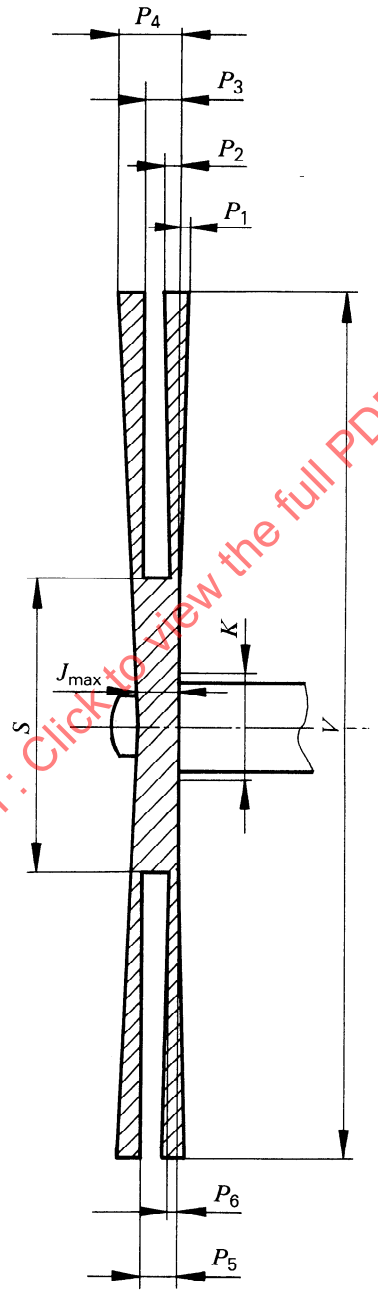

Figure 2 — Maximum volume of rotation

Table 1

Reel size number	Nominal reel capacity	Dimension	Maximum		Minimum	
			mm	in	mm	in
15	67 m (220 ft)	*M*	156,20	6.150	155,70	6.130
		V	157,00	6.181		
		film diameter*	142,2	5.60	94,0	3.70
19	120 m (400 ft)	*M*	193,65	7.625	192,90	7.594
		V	194,40	7.653		
		film diameter*	179,6	7.07	124,5	4.90

* See note 3.

Table 2

Dimension	Maximum		Minimum	
	mm	in	mm	in
B	1,80	0.071	1,50	0.059
C	13,00	0.508	12,75	0.502
D	20,90	0.822	20,40	0.802
E	63,50	2.500	62,75	2.470
H	9,40	0.370	8,15	0.321
J	11,45	0.450	10,70	0.421
K	21,60	0.850	—	—
P_1	0,40	0.016	—	—
P_2	1,40	0.055	—	—
P_3	—	—	9,50	0.374
P_4	11,30	0.445	—	—
P_5	9,40	0.370	—	—
P_6	—		1,50	0.059
R_1	Maximum is 1/2 the value of *B*		Maximum is 1/2 the value of *B*	
R_2	"		"	
S	64,25	2.530	—	—
U	0,80	0.031	—	—

NOTE — In some cases, the millimetre values are not direct conversions of inch values to facilitate compatible specifications in other International Standards. The dimensions in inch values given in the tables, are however, direct conversions from the millimetre values. Also, where necessary, millimetre values are carried an extra decimal place beyond the usual practice.

NOTES

1 Reels made according to this International Standard shall also be provided with a means of securing the full-width end of the film to the reel. This may be accomplished by a slot in the reel hub and a minimum cut-out area.

2 The flanges of the reel should have three radial driving slots placed at approximately 120° and conforming to dimensions *D* and *B*. The drive slots of both flanges are aligned. If properly aligned, the reel will fit on a test spindle (gauge) of 12,7 mm (0.50 in) diameter with a radial spindle drive key having an axial length from the spindle shoulder greater than the width *J* of the reel; a thickness of 1,47 mm (0.058 in); and a height, measured as a radius from the spindle axis, of 9,1 mm (0.36 in).

3 Some visible means of identifying the diameter of the wound film shall be provided on one or both flanges. If opaque materials are used for the flanges one or more holes are necessary for such identification.

4 One flange shall be made solid with the exception of the hub area and identifying holes (see note 3). This flange shall be the one closest to the unperforated side of the film when wound in the usual manner.

5 Openings in the flange opposite the solid flange shall be confined to an area within the minimum diameter (see table 1). Identifying holes (see note 3) are excluded from this provision.

6 The empty weight of either reel shall not exceed 200 g.

7 To reduce frictional forces from static build up, the flanges and the core of the reel shall be conductive for static elimination.