UDC 771.5

Transformed

Ref. No. : ISO/R 732 - 1971 (E)

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 732

DIMENSIONS FOR 127, 120 AND 620 ROLL FILM, BACKING PAPER AND FILM SPOOLS

2nd EDITION

October 1971

This second edition supersedes the first edition

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 732, *Dimensions for 127, 120 and 620 roll film, backing paper and film spools,* was drawn up by Technical Committee ISO/TC 42, *Photography,* the Secretariat of which is held by the American National Standards Institute (ANSI).

Work on this question led to the adoption of Draft ISO Recommendation No. 836, which was circulated to all the ISO Member Bodies for enquiry in September 1965.

The Draft was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Argentina	Czechoslovakia	Poland
Australia	France	South Africa, Rep. of
Belgium	Germany	Sweden
Brazil	Israel	Switzerland
Canada	Italy	United Kingdom
Chile	Japan	U.S.A.

One Member Body opposed the approval of the Draft:

U.S.S.R.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

BRIEF HISTORY RELATING TO THE SECOND EDITION

The publication of this second edition of ISO Recommendation R 732 was undertaken at the request of the ISO/TC 42 Secretariat in order to correct Figures 1, 3 and 5, as well as an error which appeared in clauses 2.1, 3.1 and Z.6 of the first edition.

This edition (second edition) cancels and replaces the first edition of ISO Recommendation R 732.

ISO Recommendation | R 732 | October 1971

DIMENSIONS FOR 127, 120, AND 620 ROLL FILM, BACKING PAPER AND FILM SPOOLS

1. DIMENSIONS FOR 127 ROLL FILM AND BACKING PAPER

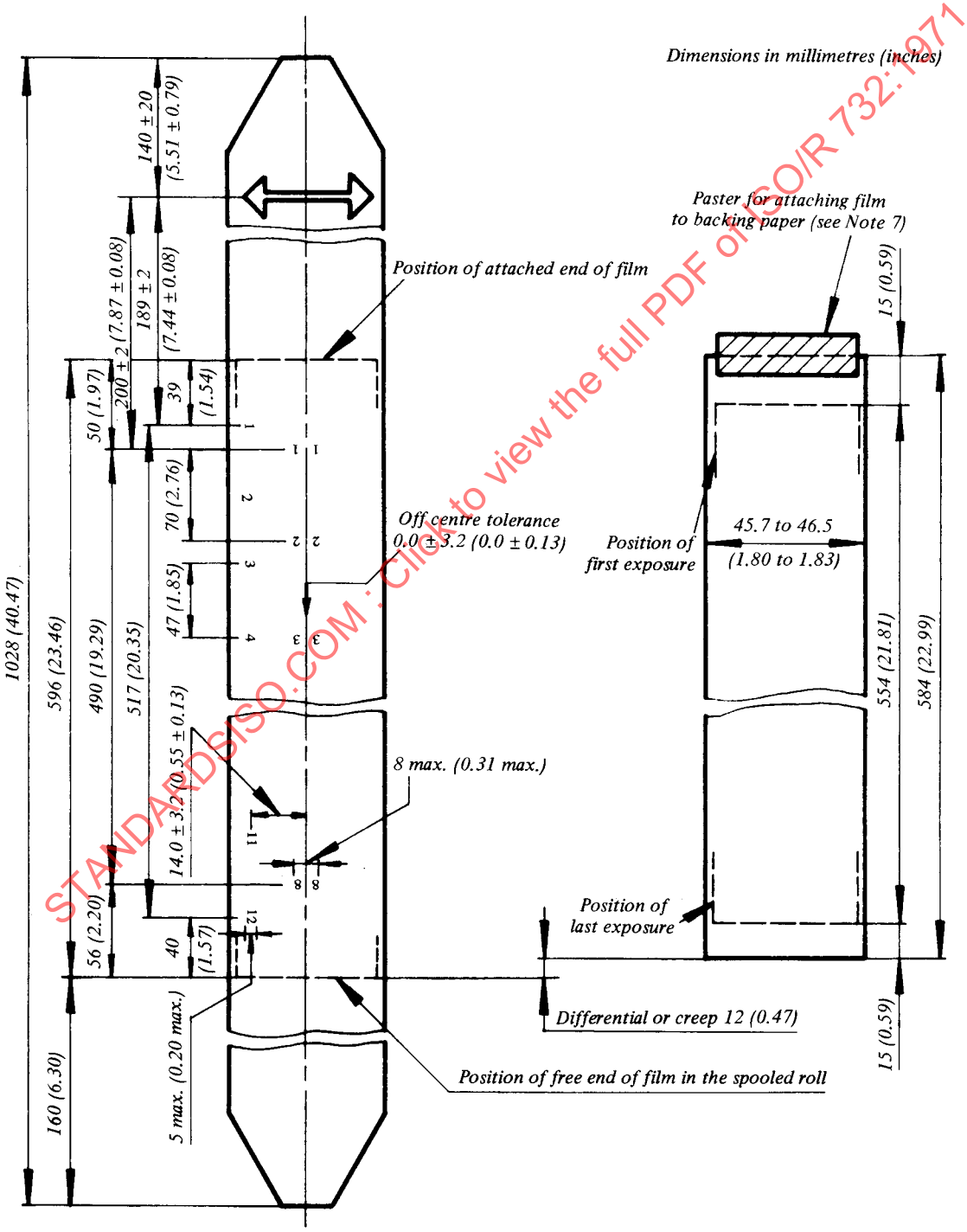

FIG. 1 – 127 roll film

NOTES

(to Fig. 1)

1. Orientation of the exposure numbers is optional with the manufacturer.

2. All dimensions are minimum except where tolerance or maximum is shown.

3. Maximum film length should be not more than 75 mm (3 in) over the minimum.

4. Thickness of backing paper should not exceed 0.14 mm (0.0055 in).

5. Thickness of backing paper plus film should be 0.24 ± 0.04 mm (0.009 ± 0.0016 in).

6. Thickness of backing paper plus film plus paster for attaching film to backing paper should be 0.4 ± 0.1 mm (0.016 ± 0.004 in).

7. It is preferred that the paster should be not more than 25 mm (0.984 in) in length in the direction of winding and its width should be such that the edges are not more than 3 mm (0.118 in) from the edges of the backing paper. The overlap between paster and film should not exceed 15 mm (0.59 in).

1.1 Dimensions for 127 roll film spools

These dimensions apply to spools with flanges having plane, parallel inside surfaces.

These spools are used in cameras with the following nominal pictures sizes:

4 cm × 6.5 cm	1 5/8 in × 2 1/2 in
4 cm × 4 cm	1 5/8 in × 1 5/8 in

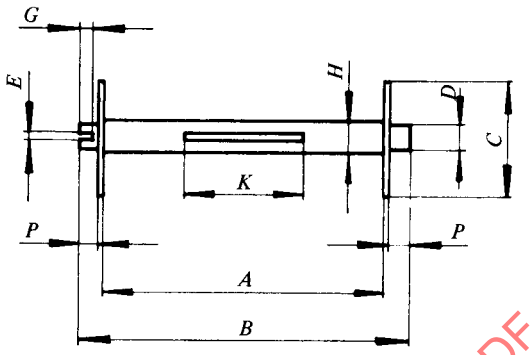

FIG. 2 – 127 roll film spool

Dimensions		mm	in
A*	max.	47.4	1.866
	min.	47.1	1.854
B	max.	55.4	2.181
	min.	54.5	2.146
C	max.	19.2	0.756
	min.	18.8	0.740
D	max.	4.0	0.157
	min.	3.7	0.146
E**	max.	1.6	0.063
	min.	1.1	0.043
G	min.	2.5	0.098
H	max.	5.2	0.205
	min.	4.6	0.181
K	min.	20.0	0.787
M	tol.	0.3	0.012
N	tol.	0.3	0.012
P	max.	3.4	0.134
	min.	2.7	0.106

M = concentricity of D and C or one-half total dial runout

N = concentricity of D and H or one-half total dial runout

* These dimensions apply to spools with straight parallel flanges which are perpendicular to the core. A tolerance of 0.10 mm (0.004 in) above maximum and below minimum dimensions will be allowed for tilted or distorted flanges.

** A key slot is required on one end of the core for use as a take-up spool in the camera. Key slots may be provided in both ends at the option of the manufacturer.

2. DIMENSIONS FOR 120 ROLL FILM AND BACKING PAPER

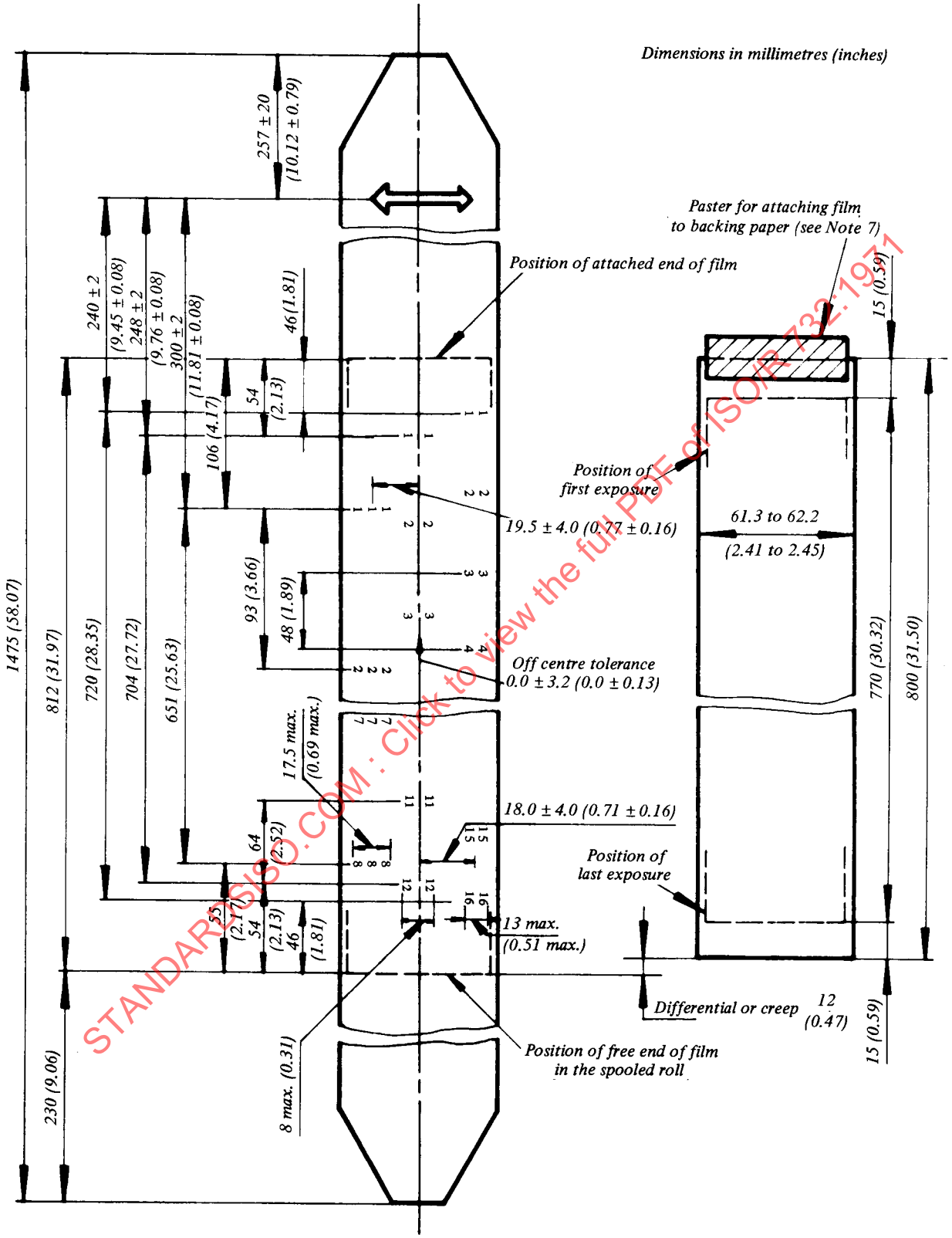

FIG. 3 – 120 roll film

NOTES

(to Fig. 3)

1. Orientation of the exposure numbers is optional with the manufacturer.

2. All dimensions are minimum except where tolerance or maximum is shown.

3. Maximum film length should not be more than 50 mm (2 in) over the minimum.

4. Thickness of backing paper should not exceed 0.14 mm (0.0055 in).

5. Thickness of backing paper plus film should be 0.24 ± 0.04 mm (0.009 ± 0.0016 in).

6. Thickness of backing paper plus film plus paster for attaching film to backing paper should be 0.4 ± 0.1 mm (0.016 ± 0.004 in).

7. It is preferred that the paster should be not more than 25 mm (0.984 in) in length in the direction of winding and its width should be such that the edges are not more than 3 mm (0.118 in) from the edges of the backing paper. The overlap between paster and film should not exceed 15 mm (0.59 in).

2.1 Dimensions for 120 roll film spools

These dimensions apply to spools with flanges having plane, parallel inside surfaces.

These spools are used in cameras with following nominal picture sizes:

6 cm × 9 cm	2 1/4 in × 3 1/4 in
6 cm × 6 cm	2 1/4 in × 2 1/4 in
4 cm × 6 cm	1 5/8 in × 2 1/4 in

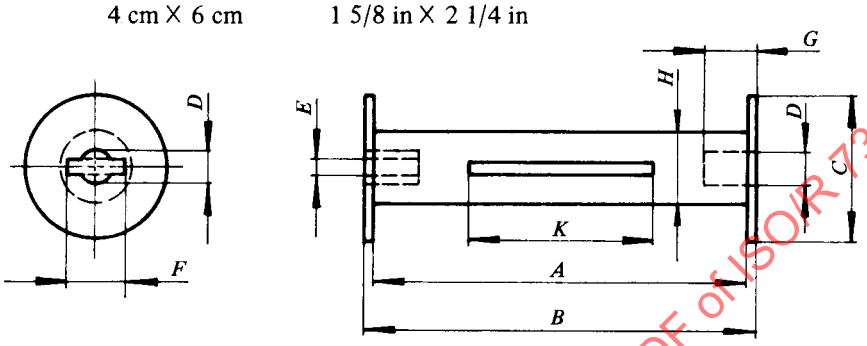

FIG. 4 – 120 roll film spool

Dimensions		mm	in
A*	max.	62.9	2.476
	min.	62.6	2.465
B	max.	66.1	2.602
	min.	65.4	2.575
C	max.	25.3	0.996
	min.	25.0	0.984
D	max.	5.5	0.216
	min.	5.1	0.201
E**	max.	2.8	0.110
	min.	2.2	0.087
F**	min.	10.0	0.394
G	min.	9.0	0.354
H	max.	12.1	0.476
	min.	11.2	0.441
K	min.	31.0	1.220
M	tol.	0.3	0.012
N	tol.	0.4	0.016

M = concentricity of D and C or one-half total dial runout

N = concentricity of D and H or one-half total dial runout

* These dimensions apply to spools with straight parallel flanges which are perpendicular to the core. A tolerance of 0.10 mm (0.004 in) above maximum and below minimum will be allowed for tilted or distorted flanges.

** A key slot is required in one flange of the spool for use as a take-up spool in the camera. Key slots may be provided in both flanges at the option of the manufacturer.

3. DIMENSIONS FOR 620 ROLL FILM AND BACKING PAPER

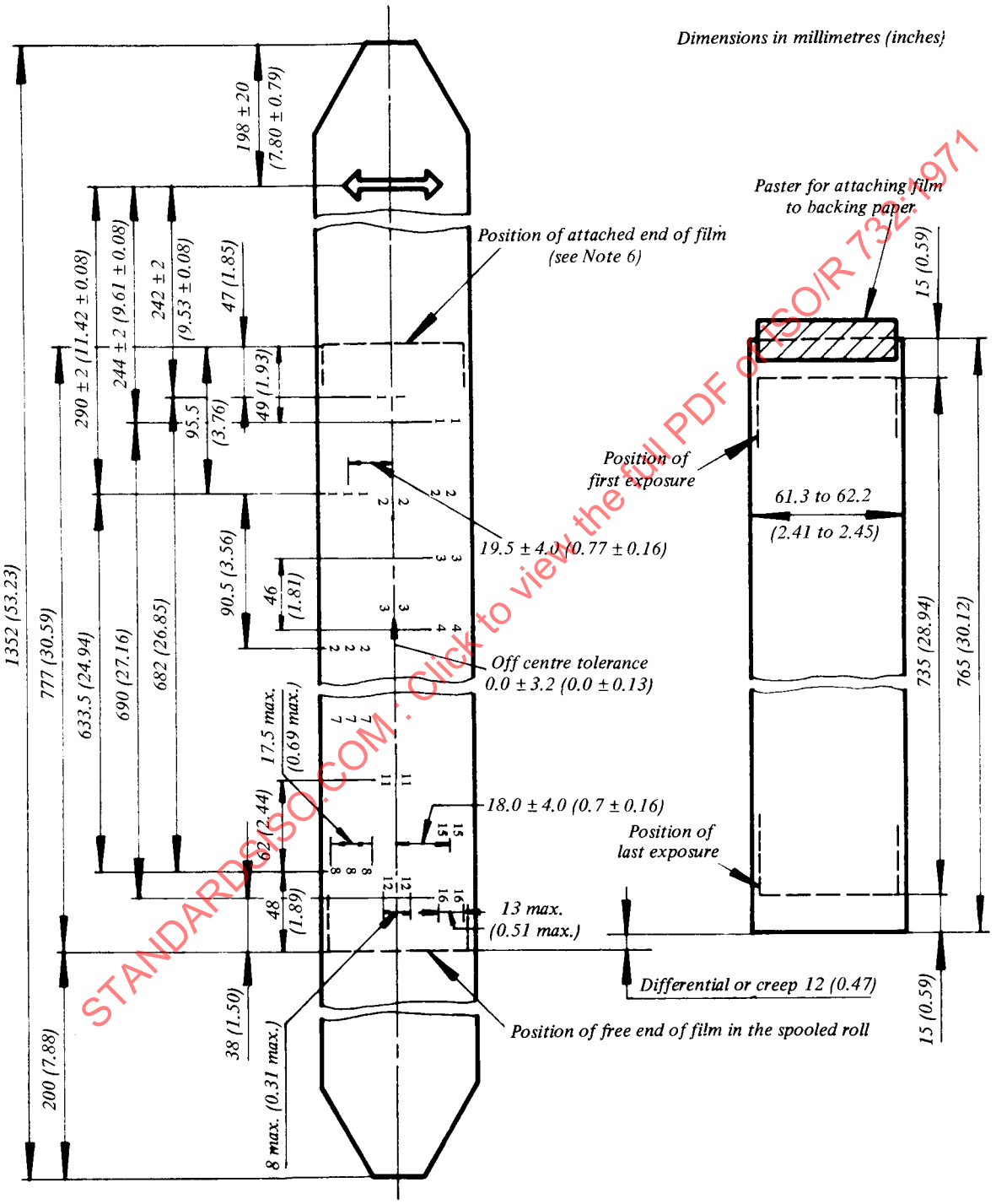

FIG. 5 – **620 roll film**

NOTES

(to Fig. 5)

1. Orientation of the exposure numbers is optional with the manufacturer.

2. All dimensions are minimum except where tolerance or maximum is shown.

3. Maximum film length should be not more than 75 mm (3 in) over the minimum.

4. Thickness of backing paper should not exceed 0.14 mm (0.0055 in).

5. Thickness of backing paper plus film should be 0.24 ± 0.04 mm (0.009 ± 0.0016 in).

6. Some manufacturers use 120 film and backing paper dimensions for 620 roll film.

3.1 Dimensions for 620 roll film spools

These dimensions apply to spools with flanges having plane, parallel inside surfaces.

These spools are used in cameras with the following picture sizes:

6 cm X 9 cm	2 1/4 in X 3 1/4 in
6 cm X 6 cm	2 1/4 in X 2 1/4 in
4 cm X 6 cm	1 5/8 in X 2 1/4 in

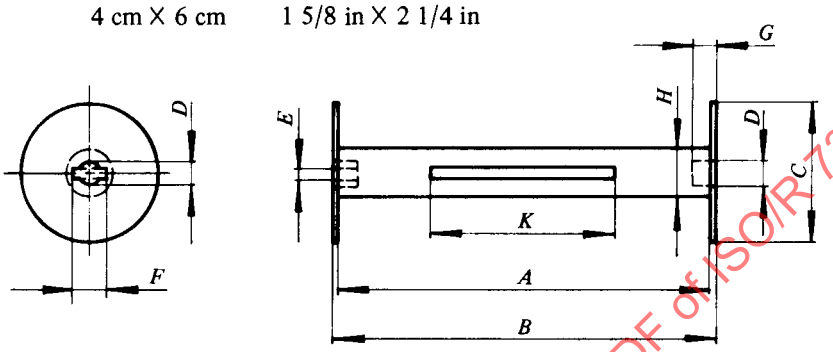

FIG. 6 – 620 roll film spool

Dimension		mm	in
A*	max.	62.9	2.476
	min.	62.6	2.465
B	max.	64.1	2.524
	min.	63.5	2.500
C	max.	23.2	0.913
	min.	22.8	0.898
D	max.	4.1	0.161
	min.	3.9	0.154
E**	max.	2.0	0.079
	min.	1.7	0.067
F**	min.	6.1	0.240
G	min.	4.0	0.157
H	max.	7.8	0.307
	min.	7.0	0.276
K	min.	31.0	1.220
M	tol.	0.3	0.012
N	tol.	0.4	0.016

M = concentricity of D and C or one-half total dial runout

N = concentricity of D and H or one-half total dial runout

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* These dimensions apply to spools with straight parallel flanges which are perpendicular to the core. A tolerance of 0.10 mm (0.004 in) above maximum and below minimum will be allowed for tilted or distorted flanges.

** A key slot is required in one flange of the spool for use as a take-up spool in the camera. Key slots may be provided in both flanges at the option of the manufacturer.