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**INTERNATIONAL STANDARD**



**3772**

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

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**Photography — Films (in rolls) for phototypesetting and photolettering devices — Dimensions**

*Photographie — Films (en rouleaux) pour appareils de photocomposition et de phototirage — Dimensions*

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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 3772 was drawn up by Technical Committee ISO/TC 42, *Photography*, and circulated to the Member Bodies in December 1974.

It has been approved by the Member Bodies of the following countries:

Australia	Ireland	Spain
Belgium	Italy	Switzerland
Bulgaria	Japan	Turkey
Canada	Mexico	United Kingdom
Czechoslovakia	Pakistan	U.S.A.
France	Romania	U.S.S.R.
Germany	South Africa, Rep. of	Yugoslavia

No Member Body expressed disapproval of the document.

# Photography – Films (in rolls) for phototypesetting and photolettering devices – Dimensions

## 0 INTRODUCTION

Until recently, there has been little emphasis on standardizing the sizes and dimensions of phototypesetting and photolettering films and cores. Also, the lack of definitive national standards was resulting in a proliferation of new product sizes which continued to grow at an alarming rate.

To minimize this proliferation, ISO/TC 42 decided in 1971 to develop an International Standard for these products and this document represents its initial efforts.

Preferred and recognized film width sizes are listed to encourage a reduction in the total number of film sizes being used. It is hoped that, with the co-operation of equipment manufacturers, the recognized sizes can eventually be dropped and only the preferred sizes used. However, because this is a dynamic and growing industry, guidelines have been established for calculating the dimension of new film sizes which may be required as a result of future innovations.

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies for roll film for use in phototypesetting and photolettering devices, in two separate categories – preferred and recognized – the following pertinent characteristics :

- forms available;
- nominal film widths, including their cutting and perforating dimensions and tolerances;
- winding orientation;
- core dimensions.

Splices permitted according to nominal film lengths are included. No cutting lengths or tolerances are specified, but the annex (A.2) lists, with explanation and as a guide, nominal film lengths in both categories. Included also in the annex (A.1) are cutting rules for application when unlisted widths are required, together with additional information pertaining to perforations, their dimensions and tolerances.

## 2 REFERENCES

ISO 491, *Cinematography – 35 mm motion-picture film – Cutting and perforating dimensions.*

ISO 3042, *Cinematography – Labelling of containers for unexposed motion-picture films and magnetic films – Minimum information specifications.*

## 3 FILM FORMS AVAILABLE

Film (in rolls) for phototypesetting and photolettering devices shall have either single-edge perforating (preferred), double-edge perforating (recognized) or be unperforated (preferred).

## 4 CUTTING DIMENSIONS

### 4.1 Width

#### 4.1.1 Preferred widths

The cutting widths of preferred nominal widths are listed in table 1.

TABLE 1 – Cutting widths – preferred nominal widths

Preferred nominal film width <sup>1)</sup>	Cutting width			
	mm		in	
	min.	max.	min.	max.
35 mm	34,75	35,00	1.368	1.378
70 mm	69,75	70,00	2.746	2.756
100 mm	99,75	100,00	3.927	3.937
150 mm	149,50	150,00	5.885	5.905
200 mm	199,50	200,00	7.854	7.874
250 mm	249,50	250,00	9.822	9.842
300 mm	299,50	300,00	11.791	11.811

1) See clause A.1 in the annex for cutting rules applying to nominal widths not listed in tables 1 and 2.

4.1.2 Recognized widths

The cutting widths of recognized nominal widths are listed in table 2.

TABLE 2 – Cutting widths – recognized nominal widths (see 4.1.3)

Recognized nominal film width <sup>1)</sup>	Cutting width			
	mm		in	
	min.	max.	min.	max.
3 in	75,95	76,20	2.990	3.000
4 in	101,35	101,60	3.990	4.000
6 in	151,90	152,40	5.980	6.000
8 in	202,70	203,20	7.980	8.000
9 in	228,10	228,60	8.980	9.000
9 1/4 in	234,45	234,95	9.230	9.250
10 in	253,50	254,00	9.980	10.000
11 in	278,90	279,40	10.980	11.000
205 mm	204,50	205,00	8.051	8.071

4.1.3 Accommodation to current and future equipment designs

The film widths listed in table 2 are recognized temporarily. However, phototypesetting and photolettering equipment manufacturers are encouraged to design future equipment to accept the preferred film sizes listed in table 1. It also is recommended that, whenever possible, existing equipment which is set up for a recognized film width be modified to accept a preferred film width.

4.2 Length

See clause A.2 in the annex.

5 PERFORATING DIMENSIONS

5.1 If perforated, film (in rolls) shall have perforations conforming to the dimensions indicated in figure 1 and specified in table 3.

5.2 The distance separating double-edge perforations, *F*, is not specified in order to avoid double dimensioning and problems associated with the accumulation of tolerances. If required for design purposes, this dimension and its associated tolerances can be derived from the data contained in table 3. [ $F = A - 2(C + E)$ ] (See A.3.1.)

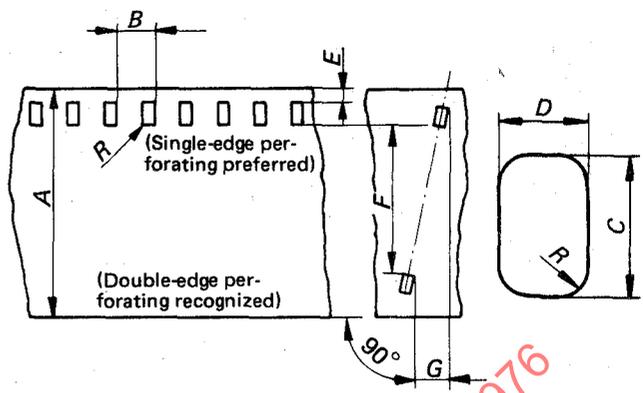


FIGURE 1 – Perforating dimensions of films (in rolls) used in phototypesetting and photolettering devices

TABLE 3 – Perforating dimensions

Dimension	mm	in
A – nominal width	nominal width	nominal width
< 130 mm (5 in)	0 – 0,25	0 – 0.010
– nominal width	nominal width	nominal width
> 130 mm (5 in)	0 – 0,50	0 – 0.020
B	4,75 ± 0,03	0.187 ± 0.001
C	2,80 ± 0,02	0.110 0 ± 0.000 8
D	1,98 ± 0,02	0.078 ± 0.000 8
E	2,00 ± 0,25	0.079 ± 0.010
F (see 5.2)		
L – length of 100 consecutive perforations	475 ± 0,40	18.70 ± 0.015
R	0,50 nominal	0.020 nominal
G – for A nominal < 250 mm (10 in)	0,25 max.	0.010 max.
for A nominal ≥ 250 mm (10 in)	0,50 max.	0.020 max.

5.3 The dimensions specified in table 3 are similar to the Type P perforations listed in ISO 491. However, the dimensional tolerances for some of the parameters are greater for these films than those listed in ISO 491. (See A.3.2.)

1) See clause A.1 in the annex for cutting rules applying to nominal widths not listed in tables 1 and 2.