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# INTERNATIONAL STANDARD



# 3692

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

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## Information processing — Reels and cores for 25,4 mm (1 in) perforated paper tape for information interchange — Dimensions

*Traitement de l'information — Bobines et noyaux pour bandes perforées en papier de 25,4 mm (1 in) de large, pour l'échange d'information — Dimensions*

First edition — 1976-05-01

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UDC 681.327.44 : 676.816.5

Ref. No. ISO 3692-1976 (E)

**Descriptors** : data processing, information interchange, punched tapes, bobbins, bobbin hubs, specifications, dimensions, mountings.

## 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 3692 was drawn up by Technical Committee ISO/TC 97, *Computers and information processing*, and circulated to the Member Bodies in March 1975.

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

Australia	Italy	Switzerland
Belgium	Japan	United Kingdom
Canada	Netherlands	U.S.A.
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France	Poland	Yugoslavia
Germany	Romania	
Hungary	South Africa, Rep. of	

No Member Body expressed disapproval of the document.

# Information processing — Reels and cores for 25,4 mm (1 in) perforated paper tape for information interchange — Dimensions

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down the dimensions of take-up (or storage) reels with separable flanges, and of cores, so that rolls of perforated tape may be interchanged among machines of various manufacturers. It is also intended to serve as a guide in the co-ordination of equipment design.

A compatible reel and core are described. These can be used together or either one can be used separately to transfer tape from one machine to another.

## 2 REFERENCE

ISO 1729, *Information processing — Unpunched paper tape — Specification*.

## 3 REEL DIMENSIONS

### 3.1 General

**3.1.1** The reel is to be driven by a spindle with a diameter of 12,7 mm (0.5 in).

The small hub size limits the permissible drive torque and acceleration, but permits maximum tape capacity for any outside diameter.

**3.1.2** The reel mounting arrangement shall be symmetrical so that the reel may be attached to its drive system with either side out.

**3.1.3** The reel shall have means for securing either the core or the tape to the hub and shall have suitable openings for access to the securing means.

### 3.2 Dimensions

**3.2.1** The dimensions shall be as specified in figure 1 and table 1.

**3.2.2** The outside of the hub, of diameter  $B$ , must accept and drive the core described in clause 4. The design of the hub must not preclude the use of the reel as a supply reel and therefore must accommodate a cylindrical core with a minimum internal diameter of 50,8 mm (2.0 in) as described in ISO 1729.

Cylindrical cores of this type, if smooth (as frequently supplied in rolls of unpunched paper tape), shall not be used for interchange.

**3.2.3** A plane area of diameter  $C$ , concentric with the hub inside diameter, shall be provided at each end of the hub to locate the reel with respect to a platform on the drive spindle.

The outside surface of the reel shall be free of axial projections beyond the planes of these platform seats over the minimum clearance area  $D$ .

**3.2.4** Outside the platform seat clearance circle of diameter  $D$  (3.2.3), the axial projection of any portion of the reel flanges beyond the plane of the platform seat shall not exceed the value of  $L$  specified in table 1.

**3.2.5** Three slots shall be provided in each platform seat, as shown in figure 1, to engage a drive spindle key.

**3.2.6** Each of the two surfaces of the reel flanges shall lie between two datum planes separated by a distance  $J$  (see figure 1) and perpendicular to the true centre line of the hub. The inner datum planes shall be separated by a distance  $K$  (see figure 1) and shall be centred between the platform seats within 0,25 mm (0.01 in).

The inner surfaces of the flanges shall be smooth and free of burrs or sharp edges which could snag or tear the edges of the tape.

**3.2.7** The outside diameter of the hub and the outside diameter of the flanges shall each be concentric with the hub inside diameter within 1,57 mm (0.062 in), total indicator reading, i.e. the deviation of the centre of diameters  $B$  and  $M$  with respect to the centre of diameter  $A$  shall not exceed 0,79 mm (0.031 in).

## 4 CORE DIMENSIONS

### 4.1 General

The core is designed to fit on and be driven by the hub of the reel described in clause 3.

### 4.2 Dimensions

**4.2.1** The dimensions shall be as specified in figure 2 and table 2.

**4.2.2** The core must be constructed with either 12 or 20 keyways equally spaced around the inner surface.

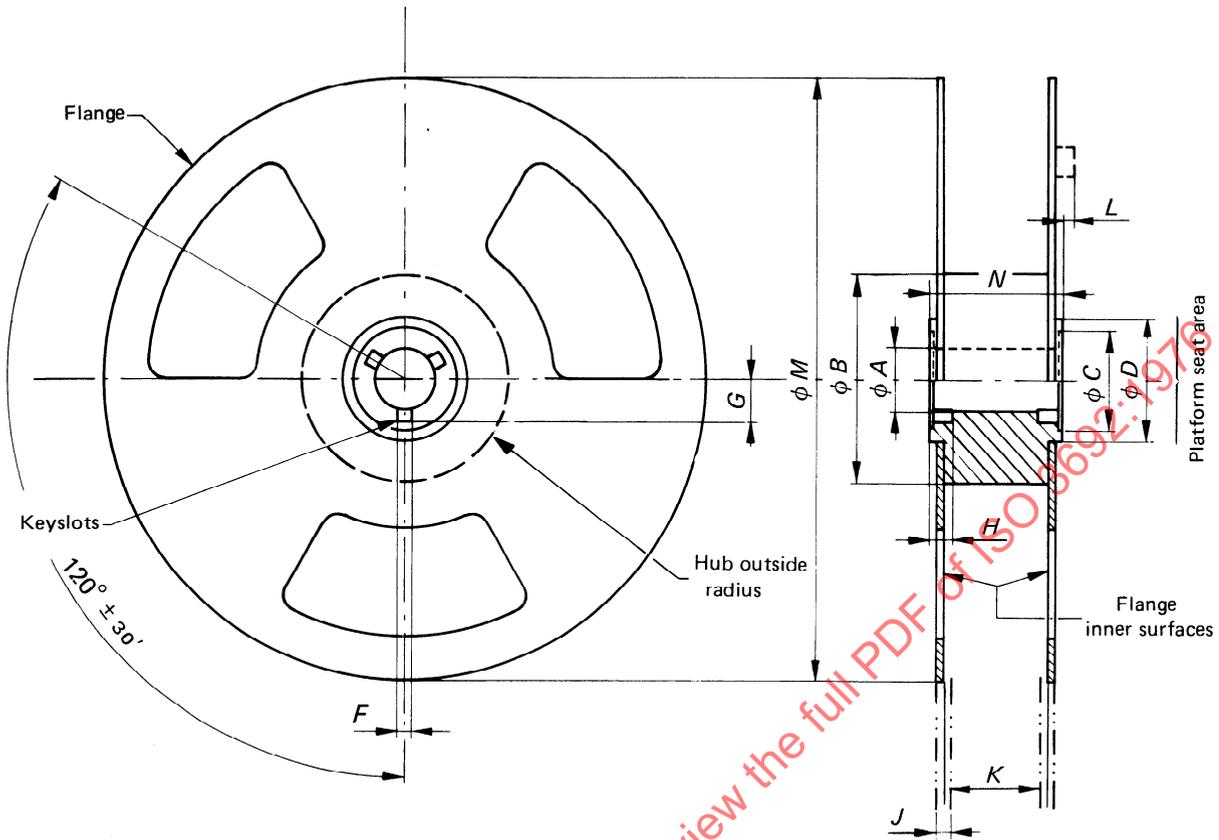


FIGURE 1 Reel

TABLE 1 – Reel dimensions

Dimension	millimetres	inches
A	12,83 $\begin{smallmatrix} + 0,13 \\ - 0,10 \end{smallmatrix}$	0.505 $\begin{smallmatrix} + 0.005 \\ - 0.004 \end{smallmatrix}$
B	(See 3.2.2)	(See 3.2.2)
C	19,1 min.	0.75 min.
D	25,4 min.	1 min.
F	1,90 $\pm 0,13$	0.075 $\pm 0.005$
G	9,52 $\begin{smallmatrix} + 0,38 \\ 0 \end{smallmatrix}$	0.375 $\begin{smallmatrix} + 0.015 \\ 0 \end{smallmatrix}$
H	3,18 min.	0.125 min.
J	2,36	0.093
K	26,42 $\begin{smallmatrix} + 1,02 \\ 0 \end{smallmatrix}$	1.040 $\begin{smallmatrix} + 0.040 \\ 0 \end{smallmatrix}$
L	2,5 max.	0.1 max.
M*	152,4 $\pm 1,6$ or 215,9 $\pm 1,6$	6 $\pm 0.062$ or 8.5 $\pm 0.062$
N	33,0 $\begin{smallmatrix} + 0,8 \\ - 0,2 \end{smallmatrix}$	1.30 $\begin{smallmatrix} + 0.03 \\ - 0.01 \end{smallmatrix}$

\* Larger diameters than those specified may be admitted by special agreement between sender and recipient.

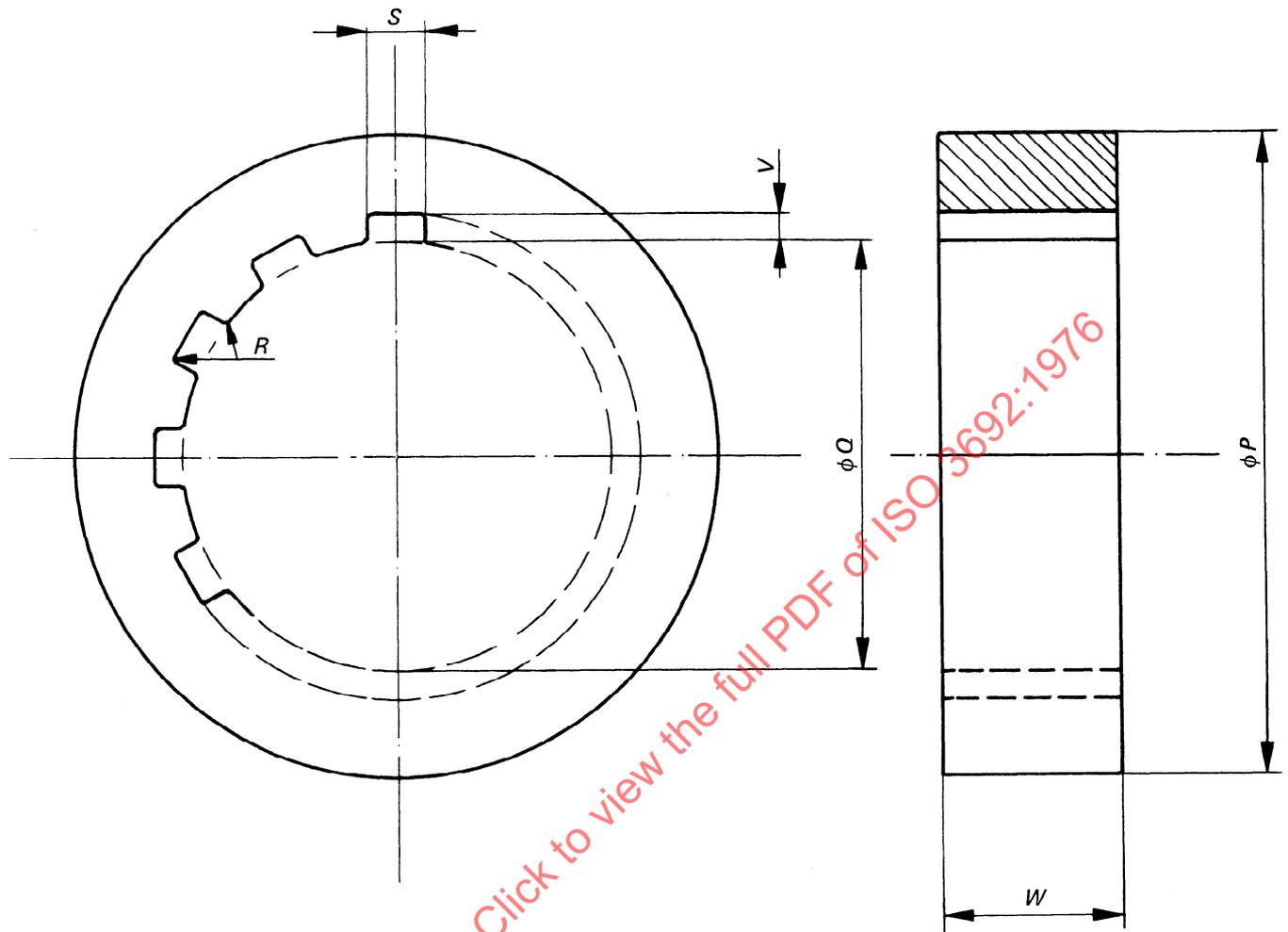


FIGURE 2 – Core

TABLE 2 – Core dimensions

Dimension	millimetres	inches
<i>P</i> *	59,00 max.	2.323 max.
<i>Q</i> **	51,00 ± 0,10	2.008 ± 0.004
<i>R</i>	0,20 max.	0.008 max.
<i>S</i>		
– for 12 keyways	5,80 min. 6,20 max.	0.228 min. 0.244 max.
– for 20 keyways	4,83 min. 5,08 max.	0.190 min. 0.200 max.
<i>V</i>	0,60 min. 0,80 max.	0.024 min. 0.031 max.
<i>W</i>	25,32 ± 0,05	0.997 ± 0.002

\* Cores having a greater diameter than the above maximum may be exchanged by agreement between sender and recipient, but it is considered undesirable that the mass of the core should be increased greatly when the diameter is increased.

\*\* Attention is drawn to the fact that, under extreme conditions of temperature and humidity, distortion of the core may occur due to pressure exerted by the paper tape wound round it.

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