

Magnetic tape sound recording and reproducing systems —

Part 6: Specification for reel-to-reel systems —

(Implementation of CENELEC
HD 311.6 S1)

UDC 681.846.7

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- Audio Engineering Society
- British Broadcasting Corporation
- British Kinematograph, Sound and Television Society
- British Tape Industry Association
- Independent Television Association
- Independent Television Commission
- National Council for Educational Technology
- Royal Photographic Society
- Royal Television Society
- Sound and Communication Industries Federation

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National foreword

This Part of BS 6288 has been prepared under the direction of the Electronic Equipment Standards Policy Committee and is identical with IEC 94-6:1985 “*Magnetic tape sound recording and reproducing systems*”, Part 6: “*Reel-to-reel systems*”, published by the International Electrotechnical Commission (IEC).

This British Standard is also in agreement with Harmonization Document HD 311.6 S1, published by the European Committee for Electrotechnical Standardization (CENELEC).

Wherever the words “part of IEC Publication 94” appear, referring to this standard, they should be read as “Part of BS 6288”.

BS 6288 consists of the following Parts:

- *Part 1: Specification for general conditions and requirements;*
- *Part 2: Specification for calibration tapes;*
- *Part 3: Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape;*
- *Part 4: Methods for measuring the mechanical characteristics of magnetic tape for analogue recording;*
- *Part 5: Specification for electrical magnetic tape properties;*
- *Part 6: Specification for reel-to-reel systems;*
- *Part 7: Specification for cassettes for commercial tape records and domestic use;*
- *Part 8: Specification for eight-track magnetic tape cartridge for commercial tape records and domestic use;*
- *Part 9: Specification for magnetic tape cartridge for professional use;*
- *Part 10: Specification for time and address codes;*
- *Part 11: Guide to an address code for compact cassettes.*

Cross-reference

International Standard	Corresponding British Standard
IEC 94-1:1981	BS 6288 <i>Magnetic tape sound recording and reproducing systems</i> Part 1:1982 <i>Specification for general conditions and requirements</i> (Identical)

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 24, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Explanatory notes

This part of IEC Publication 94 shall be used in conjunction with the fourth edition (1981) of IEC Publication 94-1: Magnetic Tape Sound Recording and Reproducing Systems, Part 1: General Conditions and Requirements.

The clause numbers in this part correspond to those in IEC Publication 94-1 and any text given in this part shall modify the text given in IEC Publication 94-1. Absence of text in this part indicates that the provisions of the relevant clause in IEC Publication 94-1 apply.

Section 1. General

1 Scope

This part applies to reel-to-reel recording and reproducing systems only.

Section 2. Mechanical requirements

12 Applications and mechanical/dimensional requirements of reels and hubs

12.1 Applications

12.1.1 *Professional programme exchange*

For professional programme exchange the following reels and hubs shall be used:

12.1.1.1 *6.3 mm magnetic tape width*

Hub with 20 mm centre hole according to Figure 1, page 2.

Reel with 8 mm centre hole according to Figure 2, page 3.

Reel with 76 mm centre hole according to Figure 3, page 5.

Hub with 76 mm centre hole according to Figure 4, page 5.

12.1.1.2 *12.7 mm – 25.4 mm – 50.8 mm magnetic tape width*

Reel with 76 mm centre hole according to Figure 3.

Hub with 76 mm centre hole according to Figure 4.

12.1.2 *Commercial tape records and domestic use*

For commercial tape records and for domestic use the following reel shall be used:

12.1.2.1 *6.3 mm magnetic tape width*

Reel with 8 mm centre hole according to Figure 2.

12.2 Mechanical/dimensional requirements for reels and hubs

The mechanical and dimensional requirements for reels and hubs are shown in Figure 1 to Figure 4 and their associated tables.

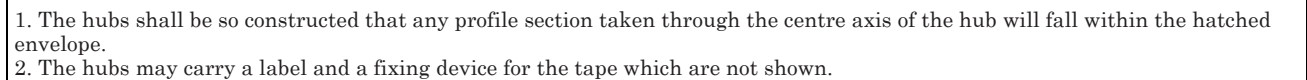
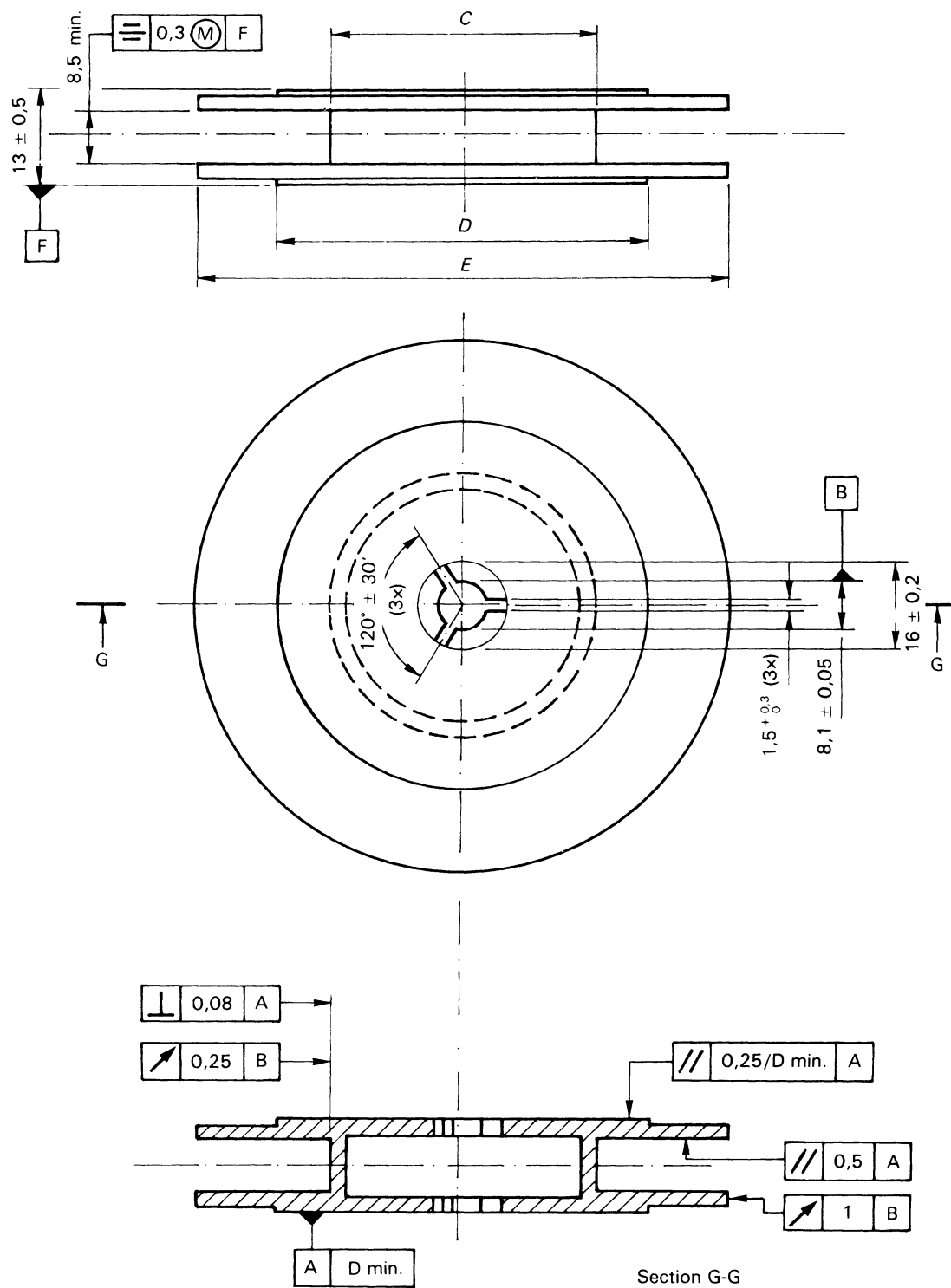


Figure 1 — Hub with 20 mm centre hole



For dimensions C , D , E and the other conditions see Table 1.

Figure 2 — Reel with 8 mm centre hole

Table 1 — (Figure 2) Reel with 8 mm centre hole

Nominal size	$C \pm 1$	D min.	$E \pm 1$	Maximum moment of inertia	Maximum mass
mm	mm	mm	mm	kg m ²	g
75	45 ^a	75	75	14.10^{-6}	30
100	45 ^a	90	100	40.10^{-6}	50
130	45	90	127	110.10^{-6}	60
150	50	90	147	200.10^{-6}	80
180	60	90	178	450.10^{-6}	110
180	102	90	178	450.10^{-6}	110
220	90	90	220	800.10^{-6}	140
250	100	90	250	$1\,300.10^{-6}$	170
270	114	90	266	$1\,500.10^{-6}$	200

^a Some countries use a diameter of 35 mm.

The following conditions shall apply:

1. Reels shall be symmetrical to permit mounting from either side.
2. The width of 13.5 mm shall be obtained within the diameter D . The width outside diameter D shall be equal to or smaller than 13.5 mm.
3. Bosses, ribs or raised designs are permitted on the outside surfaces of the flanges, provided they do not extend beyond the planes defined by dimension 13.5 mm.